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Further Training Peculiarities for Primary School Teachers in Educational Reforming Conditions in Ukraine

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Abstract: One of the main educational systems in Ukraine is New Ukrainian school development, the implementation of which has begun with the programs' renewal and State standards of primary school. Primary school teachers' further training was aimed at forming the leading "agents of change" who lay the groundwork for the creation of the New Ukrainian School. In the articles the organization formula and the substantive content of the Standard program for primary school teachers' further training are considered in details. It is determined that in addition to the obvious topics (NUS Concept, State Standard, class organization and learning according to the new principles, evaluation system, etc.), a module on one of the most relevant today's topics is added to the new program, namely - neuropsychology. Therefore, the purpose of our article was to highlight the further training peculiarities for primary school teachers in Ukraine considering the effectiveness of the neuropsychological aspects introduction in this process. To achieve this goal a quantitative method of the empirical level of research was chosen - a questionnaire. The results of the primary school teachers' questionnaire led to the identification of the advantages and disadvantages of the teachers' professional further training system in Ukraine, as well as to record the fact that the introduction of a compulsory module on neuropsychology helps to increase the number of teachers who implement the neuropsychological approach in education.

Keywords: *Education, training, neuropsychology, New Ukrainian school, standard program, teachers, primary school.*

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Introduction

In 2016, Ukraine embarked on a process of general secondary education active reforming. The key idea of the state policy in this reforming area was the desire to create a qualitatively excellent "New Ukrainian School" (NUS). The concept of NUS provided a radical change of the outdated system with its reorientation to the principles of partnership pedagogy and child-centeredness. Despite the modernity and vital necessity of these principles, the radical transformation of all structural and semantic elements in practice provoked a reaction of protest among significant numbers of teachers and management of educational institutions.

It is clear that the introduction of NUS would be impossible in the field of authoritarian post-Soviet teachers' views on the educational process. That is why, according to paragraph 5 of the order of the Cabinet of Ministers of Ukraine "On approval of the action plans for 2017-2029 with introduction the Concept of public policy in the reform of general secondary education" New Ukrainian School "it become compulsory to improve the primary school teachers' skills throug further training (*CMU Order № 903-r, 2017*). Further training was aimed at forming "agents of change" who will implement the ideas of NUS. In 2018, the Order of the Ministry of Education and Science of Ukraine approved the Standard Educational Program organization and further training of teachers, which, in our opinion, takes into account current trends in education and world science (*Order of the Ministry of Education and Science of Ukraine № 36, 2018*). For example, the study of neuropsychology is included in the compulsory module of the standard program. Neuropsychological researches in Ukraine develop in two directions: the study of the neuropsychological aspects of developmental disorders (I. Kravchenko, L. Moroz, L. Stakhova, 2020; A. Mukhina, N. Seromakha, 2020; M Sheremet, Y. Kolomiets, 2012; Melnyk, 2021; Komogorova, 2021; Sheremet, 2019; etc. .) and the application of a neuropsychological approach within the educational process (V. Antonov, 2018, O. Vozniuk, 2019, N. Glynyanyuk, 2020, V. Dyachenko, 2019, B. Tkach, 2018, etc.).

The important use of the neuropsychological knowledge in the educational process was also noted by L. Vygotsky (1983), A. Luria, L. Tsvetkova (1996), T. Akhutina, N. Pilaeva (2008), J. Glozman (2009) and others.

Today, the rapid development of research on the use of neuropsychological data in children's education has become the basis for the emergence of a new direction - neuropedagogy, which allows teachers to

take into account the age dynamics of brain structures maturation and individual characteristics of student brain functioning in planning and organizing schooling. The key ideas of implementing the neuropsychological approach in school practice are highliting in the works of R. Haak (1989), L. Kiessling (1991), S. Goldstein, A. Schwebach (2009), M. Cleary, A. Scott (2011), P. Jantz , C. Plotts (2014), A. Tsvetkova (2017). The use of brain "secrets" for the successful learning formation and activity are presented in studies by W. Oakley, T. Sejnowski, A. McConville (2018) and others.

The application of knowledge of the neuropsychodiagnostics, the neuropsychocorrection will help the teacher to organize the learning process taking into account the strengths and weaknesses sides of the child's functional system, which will promote the development of cognitive functions and effective learning. Today, there is a rapid trend of number increasing of children who are not ready for school or have learning difficulties. The use of neuropsychological knowledge of a teacher will help him to teach children to learn, and will facilitate the learning process itself. Therefore, the neuropsychopedagogy should be a mandatory element in the training and primary school teachers' further training.

Despite the relevance of the topic, the problem of studying the features of primary school teachers' further training in terms of the introduction of neuropsychology remains poorly understood which determined the purpose of our study.

A theoretical review

According to the Procedure of further training of pedagogical and scientific-pedagogical workers (*Resolution of the Cabinet of Ministers of Ukraine on August 21, 2019 № 800*) primary school teachers must have further training at least once every five years. At the same time, according to the current Law of Ukraine "Education Act" and "General Secondary Education Act", general education institutions teachers are required to have further trainings every year. Thus, primary school teachers must have further trainings so many times each school year that they at least totally have150 hours in five years, with no fixed number of hours per year.

Primary school teachers' further trainings in Ukraine are organized according to the Standard educational program. This program is aimed at "… providing individual-personal and professional students' self-improvement through the activation of their basic education, professional and life experience in accordance with individual interests, state social demands for effective performance of official duties" (*Order of the Ministry of Education and Science of Ukraine № 36 , 2018*) and provides the formation of

basic competencies of primary school teachers NUS (professional-pedagogical, socio-civic, cultural, language-communicative, psychological-facilitative, entrepreneurial and information-digital competencies).

The realization form of the standard program is mixed (face-to-face-distance). The distance form provides for a specially designed course "Online course for primary school teachers" on the EdEra platform: https://ed-era.com/nus. The online course is free, contains 6 main modules, and involves listening to lectures and doing practical and theoretical tasks, the effectiveness of which influences on getting the certificate (60 hours). This certificate is mandatory for all first grade teachers.

The face-to-face form of education consists in attending training sessions, interactive lectures, master classes, discussions, conferences organized by regional Institutes of Postgraduate Pedagogical Education. The total duration of the face-to-face part should be 60 hours.

Thus, the distance curse courses and face-to-face study are a mandatory part of the standard program, which totals 120 academic hours (4 ECTS credits) and covers professional training modules. Another 30 hours are allocated to the elective part of the program (1 ECTS credit). The selective part provides a free choice of module topics according to the teachers' needs. The form of selective partial realization can be both face-to-face and distance. The total duration of the program is 150 hours.

The content of the standard program includes the study of basic modules on topics that reveal the content and concept of the New Ukrainian school, features of effective and safe educational environment, approaches to learning, teaching methods and its specifics in primary school, key aspects of assessment in education process, principles of partnership pedagogy and integrated learning, basics of inclusive education and neuropsychology (*Order of the Ministry of Education and Science of Ukraine № 36, 2018*). The last two areas (inclusive education and neuropsychology) are especially relevant in educational reforming conditions in Ukraine, as they are now at the stage of active implementation of the school system. The application of the neuropsychological approach to the implementation of NUS reform in the general school was an isolated exception rather than a mandatory practice. That is why there is a need to study the effectiveness of the introduction of the neuropsychological aspects in the system of primary school teachers' further trainings.

Methodology

The purpose of the study was to identify the features of primary school teachers' further training in the context of education reform in Ukraine, taking into account the effectiveness of the introduction of neuropsychological aspects in this process.

In order to achieve this purpose, we have identified the following main tasks:

- find out the general attitude of teachers to innovations in the requirements for professional development;
- to identify the urgent problems for teachers in the implementation of the new further training system;
- to determine the effectiveness of introduction of neuropsychology as a mandatory module in the Standard further training program.

The study was conducted from September 2020 to May 2021. The field study lasted 6 months (from October 2020 to April 2021).

The empirical object of the study was primary school teachers in Ukraine. The total number of respondents covered by the survey was 300 people. Including:

- 97% were women (aged 24 to 52 years) and 3% - men (aged 27 to 35 years);
- from rural schools - 38.7%, from urban schools - 61.3%;
- with pedagogical experience up to 5 years - 28.6%, from 5 to 10 years - 44%, more than 10 years - 27.4% of respondents.

An online questionnaire was chosen as the method of collecting information. The survey was conducted online using an electronic questionnaire created in Google form. Questionnaires were distributed by posting their links on the schools' websites in different regions of Ukraine, in social networks (in profile groups - pedagogical and educational portals, pedagogical communities). In total, 726 links were sent during the study period. The share of respondents who answered the questionnaire was 41.3%. The survey online form was chosen by the global to comply with quarantine requirements in the context of world widespread epidemic COVID-19, as well as to optimize the cost of resources for research (time, partial automation of processing results, involving teachers from different regions of Ukraine, etc.). The questionnaires provided a list of questions that can be divided into the following blocks:

1. *General questions* (age, gender, locality, teaching experience);
2. *Questions aimed at clarifying teachers' attitude towards the new further training system (e.g.:* "Are you satisfied with the quality of the further training

system in Ukraine?", "What do you like most about the further training system?", "What would you change about the further training system?", etc.).

3. *Issues specifically related to neuropsychology and aimed at determining the effectiveness of the introduction of neuropsychology in the contemporary system of further training of primary school teachers.* The "effectiveness" of implementation is determined by two aspects: teachers start using knowledge of neuropsychology in the educational process after further training courses and a positive assessment by teachers of the dynamics of the application of neuropsychological knowledge in the educational process (for example, "Do you use knowledge of neuropsychology in planning and organization of the educational process?", "What methods of neuropsychology do you use during the educational process?" "Has the effectiveness of student learning changed after you introduced methods of neuropsychology? How?", "Do you use knowledge of neuropsychology to activate your own brain activity?").

Ranking and calculation of quantitative results for each question, both in general and for each respondent individually, was done automatically using the settings of Google-form. During the study the basic ethical principles that are the voluntary and anonymous participation, consent to the processing of data, safety of the study, etc.

Results and discussion

Under the new Standard Program, all surveyed primary school teachers have passed further training (51.3%) or are currently undergoing (48.7%).

53.3% of respondents are completely satisfied with the quality of the further training organization system in Ukraine (the vast majority of respondents in this group have up to 10 years of teaching experience and are representatives of the city's schools). The number of partially dissatisfied was 30%, and completely dissatisfied - 16.7% (the vast majority of respondents in this group have more than 10 years of experience and are in the age category from 48 to 52 years).

Qualitative analysis of arbitrary answers to the question "What do you like most in the created system of further training?" allowed to select the following general groups of answers:

- availability of interactive exercises, tasks and practice-oriented trainings (56.7% of respondents);

- complexity and modernity of the subject of professional modules of the Standard program of primary school teachers' further trainings (34.3% of the total number of respondents);

- the presence of a sample of the program (41.7% of respondents);

- mixed form of conducting (distance-face-to-face) further training (43.3% of all respondents);

- the quality of the developmental courses (56%, of which 90 people (53.6%) said about the online course on the EdEra platform, 78 people (46.4%) - about face-to-face courses in postgraduate education institutions);

- availability of teaching (30.3%).

To the question "What would you change in the created system of further training?" 44.7% of teachers surveyed said that they did not change anything, the rest of the respondents (55, 3%) said:

- compulsory in further training (34.7% of teachers believe that the desire to improve further training should be conscious (internally conditioned) and not imposed by the state);

- the formality of the approach (13.3% of respondents mentioned the emergence of a formal approach to the further training process; here are some examples of answers for better understanding: "I think it is necessary to change the quantitative approach to qualitative, because a significant number of teachers prioritize to "get" certificate with a certain number of hours, not new KAS"; "The vast majority of teachers are overloaded, if they are given the number" 150 hours ", then they get it with a sigh of relief and no longer continue", "… Need to change the race for certificates", "The number of hours was collected, but the quality was forgotten", etc.);

- a small number of hours per elective part of the program (5% wanted to increase the number of credits allocated to the elective part of the further training program; here we included teachers (16%) who believe that the typical program lacks updated topics and that you need to add each year new topics);

- inability to ensure the objectivity of the assessment during distance learning (3.3% of respondents noted the non-independent performance of tasks by colleagues, test control, etc. when receiving a certificate);

- difficulties during distance learning (2.7% of respondents said that they do not like distance learning because household duties interferes with homework, it is difficult to organize your time for systematic review and self-study; difficulty in perceiving material through the screen, etc.) ;

- low-quality face-to-face further training (1.7% of teachers, noted that they had the experience of attending poorly organized further training

courses (low level of teacher competence, unavailability of material, detached from practice, etc.).

The following questions of the questionnaire were aimed at finding out the effectiveness of the introduction of a neuropsychological approach in the process of primary school teachers' further trainings.

Respondents' answers to the question "Are you familiar with the terms" neuropedagogy "and / or" neuropsychology "? found that only 6.7% of teachers were unfamiliar with these terms, 40% of teachers said they learned about neuropsychology during their further training, and 53.3% were familiar with the term before taking the Standard Course Program. Despite the fact that most teachers are familiar with the terms "neuropsychology", "neuropedagogy", the percentage of teachers who used the neuropsychological knowledge in the organization of the educational process, even before the implementation of the NUS reform was 24.7%. After further training, the percentage of teachers who began to use the neuropsychological approach in the education of primary school children was 51.3%. That is, it can be noted that the introduction of the mandatory module "Neuropsychology" in the Standard program of primary school teachers' further training has contributed to an increase in the number of teachers who began to use knowledge of neuropsychology in the educational process. Unfortunately, 24% of respondents stated that they do not use the neuropsychological knowledge in their professional activities.

Among the most common methods of neuropsychology used by primary school teachers were games and exercises for the development of interhemispheric interaction (eg, "Fist-rib-palm", "Ear-nose", drawing with both hands), activation of functional brain blocks (psychosomatic technique "Mudry", breathing exercises, oculomotor exercises) exercises to improve the perception and processing of information (" Mandala Jung ", drawing a dot figure), games to stimulate attention and develop self-control (" Traffic light "," Fly and frog "," Catch cotton " etc.), classes with balance weights, relaxation exercises, etc.

Among teachers who use the neuropsychological approach in the learning process, 86% noted about the improvement in the effectiveness of students' learning activities after the introduction of the neuropsychological practices, improving their psycho-emotional state, a significant leap in the development of cognitive processes (especially memory, attention, perception) acceleration in creating trusting relationship between a student and a teacher.

Analysis of the answers to the question "Do you think that the number of hours devoted to the module of neuropsychology in the Typical

program of primary school teachers' further training is enough?" allowed us to conclude that 28% of teachers surveyed are satisfied with the number of hours devoted to the study of neuropsychology, 50% - believe that the proposed amount is sufficient if you choose in addition to selective courses on the study of neuropsychology, 22% of teachers said the lack of hours devoted to such a complex and an interesting topic.

To the question "Do you use knowledge of neuropsychology to activate your own brain activity (improving attention, memory, learning, planning, etc.)?" 36.7% of the surveyed teachers gave a positive answer and described what methods they use in their own practice. Other teachers (63.3%) stated that they "use only for teaching students and do not use for themselves" or "rarely use" and could not give specific examples. The analysis of the obtained results on this issue suggests the need for further detailed study of the correlation of the teacher's ability to "teach children to learn" and the use of this ability in relation to their personality.

Research limitations

Despite the fact that sampling of respondents included representatives of different regions of Ukraine, different ages, different teaching experience, the results of the analysis show only the data of teachers who joined the study (300 respondents), and cannot be extended to the general population, therefore, a shift in research results is possible.

During the survey, teachers provided subjective information about their professional activities. Data on the effectiveness of implemented methods of neuropsychology obtained through surveys were not verified by observation or expert evaluation, so it is likely that respondents could overestimate their own results in the introduction of neuropsychology in the educational process. To reduce the likelihood of this factor, the survey was conducted anonymously and contained a number of clarifying questions, which provided a detailed response of the teacher on the methods and results of the use of neuropsychology in the educational process.

The survey does not take into account the family status of respondents and does not reflect the change in attitudes and opinions of teachers about innovations over time. The survey was conducted during six months, but at the same time, the results reflect the opinion of respondents only at the time of the survey (thus, the share of teachers undergoing training under the new system is constantly increasing, which may affect the survey results). The family status may correlate with different workload options of the teachers, free distribution of finances (e.g. the ability to pay

for an internship trip to another city), etc. A further research is needed to gain an in-depth understanding of these aspects.

Conclusions

Primary school teachers' further trainings in educational reforming conditions in Ukraine have paramount importance. Primary school teachers are people who create the first impression of school for children, establish the desire and ability to learn, form a thirst for knowledge and build a foundation for further personal development.

That is why it is so important that teachers understand and implement the state standards and guiding principles of the New Ukrainian School. In Ukraine, primary school teachers have to further train every year, thus launching a mechanism for continuous professional development. Conventionally, the further training system for teachers in this category can be divided into two parts - compulsory (120 hours) and optional (30 hours). The form of study is mixed (face-to-face and part-time), and the 150 hours received are the minimum number of hours to enroll in further training for five years. Among the features of primary school teachers' further trainings are the following:

- in Ukraine the Standard program of primary school teachers' further training is developed;
- most of the interviewed teachers are satisfied with the quality of the Standard program, noting its modernity, practicality, complexity and accessibility;
- further trainings are a mandatory process for all teachers;
- the selective part of the further training program contributes to the satisfaction of individual needs, interests and teachers' self-development;
- the mandatory modules of the standard program include such relevant topics for Ukrainian education as inclusive education and neuropsychology.

Analysis of the effectiveness of the introduction of the neuropsychological aspects of the mandatory module of the standard program of primary school teachers' further training shows that the passage of this module contributes to the growth of teachers who began to use knowledge of neuropsychology in education. However, only 28% of respondents consider a sufficient number of hours devoted to the study of neuropsychology in the Model program.

More than 80% teachers, who began to use the neuropsychological knowledge in their professional activities, noted the positive dynamics in the

effectiveness of educational activities of primary school students, their psycho-emotional state.

Thus, it can be noted that the system of primary school teachers' further training in Ukraine is at a higher organizational and methodological level, corresponds to modern requirements, but, at the same time, needs to be optimized in the following areas: ; the possibility of increasing the number of hours devoted to the study of neuropsychology; introduction of practical aspects into the neuropsychology module, which will help teachers to master self-help skills (how to better remember information, how to activate their own brain activity, etc.).

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