

Efficiency of Social and Educational Experimental Training “New Physical Culture for the New Ukrainian School”

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Abstract: Present school educational process can be characterized by the dominance of old approaches and stereotyped classical forms of learning. Physical culture is seen as a subject that forms physical and mental qualities and skills, stimulates the development of such an attitude towards health that contributes to active life and the development of social competence. Therefore, there is a need to change the teachers' views on their own social mission, and to update the methodology of physical culture in the primary school. It requires modernization of the content and forms of teachers' training in the context of the Concept of the New Ukrainian School. The purpose of the study is to determine the effectiveness of social and educational experimental training “New Physical Culture for the New Ukrainian School” in the system of postgraduate pedagogical education. The research was conducted on the basis of the Zaporizhzhia Regional Institute of Postgraduate Pedagogical Education (June–November 2018). Questionnaires at the beginning and after training, introspection and analysis of lessons three months after the training, experimental methodology for determining the efficiency coefficient of the lesson have been used. Vectors of pedagogical attention are singled out, important for the teacher socially-oriented tasks of the lesson are described. The results of the study point to positive social and educational effects of the experimental training. The training has been implemented in the postgraduate educational process.

Keywords: *education; methodology; teacher; lesson; physical training; socialization.*

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1. Introduction

Ukraine's educational space has been experiencing dramatic reformation in accordance with the Concept of New Ukrainian School (2016) and the State Standards for Primary Education (2018). The priority issues of these regulatory documents comprise the child-centered approach, the principles of partnership pedagogy; pedagogical attention to the formation of emotional and social intelligence, students' comprehensive key competencies, their socialization and health. Consequently, they deal not only with physical, but also emotional and social health of an individual. These aspects receive close attention in terms of European integration due to primary importance of developing the individual's ability to cooperate in various groups and teams, to perform certain social roles (professional, family etc.), to be flexible, mobile, cross-functional (Varetska, 2015). The issue becomes increasingly important due to the growing number of school bullying cases. Another occurring condition can be attributed to the insufficient concern demonstrated by physical education (PE) teachers for the positive Youth Development Concept (PYD-concept) in the national context (Lee et al. 2018).

The idea of educational experimental training as a means of increasing professional competencies among PT teachers has been addressed by various researchers in a number of studies. The paper published by Rubeli et al.(2020) indicates that engagement in long-term training supports PE teachers in their initiative to implement teaching styles. The study by Xiong et al. (2020) explores the influence of various background factors on secondary school PE teachers' self-efficacy, work input and creative teaching. The research by Canadas et al. (2020) focuses on formation of PE teachers' key competencies. The study by Yezhova et al. (2019) highlights the development of teachers' ICT competence. The paper by Daly-Smith et al. (2020) identifies multi-stakeholder perspectives, important for widespread physically active learning adoption and implementation.

Another part of the issue addressed in this article is strongly related to youth's health condition and means of its correction with the help of PE. This, in its turn has received substantial coverage in scientific discourse: e.g., express physical condition assessment system of boys is presented in the article by Yarmak et al. (2017). The related research work by Galan et al. (2017) determines and evaluates the indicators of physical fitness of the secondary-school-age children, revealing the fact that the majority of students demonstrated individual results at an average or below average levels. Additional important area of related studies focuses on poor health

condition in children and adolescents, in Ukraine in particular. This fact is proved by recent studies in: low functional indicators (Bolotin & Bakayev, 2017; Butenko et al. 2017; Paliichuk et al. 2018); adaptive-backup capabilities (Yarmak et al., 2017). Also, the results of the national research conducted by Pavlova et al. (2018) confirmed the fact that Ukrainian students have an average or below-average level of cardiorespiratory system health. The main factor contributing to this condition is identified as inappropriate level of physical activity and a consequence is physical inactivity. Another challenge to be addressed by national physical education is the negative dynamics of Ruffier test results in children of 5-11 years (Akseonova, 2016).

The problem of organizing the process of professionally applied physical training of students has received coverage in the work by Salatenko (2012). The studies of specialists in physical education and sports, namely Kashuba & Golovanova (2018), highlight theoretical, methodological and applied aspects of constructing the process of professionally applied physical training of students. The research performed by Catley & Tomkinson (2011) indicates the normative health-related fitness values for children. The results of the study confirm low physical fitness levels in students (Pichurin, 2014) and prove the need to implement innovative methods of physical education. The study of Blevins et al. (2020) examined factors related to the training and stress of professional dancers. The authors of the article Fakhrutdinova et al. (2019) focus on the importance of physical training in the vocational education of musicians in college.

However, the results of the analysis of educational activities on the physical education of students showed the dominance of old approaches and stereotyped forms of learning. These negative trends are of international research concern. A source of concern is the fact that currently teachers do not have clear understanding of the idea related to the development of personality by means of physical culture and sports. They restrict their activities to the training approach and determining the best performance results of their students. This fact substantiates the necessity to develop appropriate methodology for PYD physical education lessons, provide appropriate support to teachers, update the existing forms of physical education teaching, and equip educators with the tools to tackle the realities of physical education lessons in modern schools (Ní Chróinín et al. 2018). In this respect, one of the positive results highlighted in the related papers was the effect of taekwondo classes on the formation of primary school pupils posture, noted in the study by Tomenko et al. (2017). The article by Sato et al. (2019) is devoted to the preparation of Japanese elementary school teachers to teach physical training.

Currently, present day practices of physical education in Ukrainian schools exercise traditional classical method. It is based on the principles of manipulating children's actions, stressful physical activity and artificially created competitiveness. A classical physical education lesson is modelled upon sports training. This fact can be viewed as a methodological rudiment. It proves that there is a contradiction between the state requirements for the modern lesson of physical education in the New Ukrainian School and the lack of the new methodology for the lesson of “Physical Culture”.

Unfortunately, at the level of the Ministry of Education and Science of Ukraine, there is a gap in educational programs in further training of physical education teachers in compliance with the implementation of the Concept of the New Ukrainian School (2016), which could successfully equip specialists in physical education with new methodical tools.

Considering this, the following research objectives and hypothesis can be outlined: the presented paper focuses on defining social-cultural impact of experimental training in terms of updating methodology of physical education lesson within the framework of the “New Ukrainian School Concept”, shifting the educator’s ideas regarding their social mission and the necessity to implement new healthcare approaches during the lesson.

With reference to the present-day social-cultural conditions, the authors put forward the following research hypothesis: introducing experimental training “New Physical Culture for the New Ukrainian School” facilitates achieving priority educational benefits. These include increased educators’ awareness of the contemporary physical education lesson format and lesson productivity in junior school; sustaining educators’ orientation on health-centered didactic system (retaining and developing health, nurturing health culture in pupils) together with implementing new effective social-educational approaches at physical education lesson.

2. Material & methods

The research involved 512 secondary school teachers, delivering Physical Education classes to junior schoolchildren in Zaporizhzhia region. The average age of the participants was 43.6 years, 98.2% with a specialized university degree, the rest with a secondary vocational education. It should be noted that qualified pedagogical personnel statistics in Zaporizhzhia region demonstrated the following trends: 53% of teachers have 20 or more years of pedagogical experience, 37.3% have from 3 to 20 years, 9.7% of teachers have 3 years or less and the total number of working pensioners

equals 15.8%. Consequently, there is an observable trend in aging workforce, which, in its turn produces ambiguous effect on the quality of education.

According to the *hypothesis* brought forward in this paper, considering the conditions mentioned above, the priority educational effects of the training “New Physical Culture for the New Ukrainian School” are the following: 1) increase of teachers’ awareness on the modern lesson of physical culture in the first forms; 2) introduction of new approaches in the classroom as a result of the training. To test the first part of our hypothesis, we carried out a survey at the beginning of the training and at its closing. The survey questions were related to the content of the National Standards of Primary Education and General Standard Primary Education Program. These survey questions included the following.

1. What is the purpose of physical education, defined in Standard Education Program?

2. Specify the tasks to be addressed by the teachers according to Standard Education Program (Physical Education).

3. How many key competences of should be developed in all education sectors?

4. Which types of first-grade pupils’ intelligence should be addressed by modern teachers?

5. Specify the requirements for a modern lesson of “Physical Education” in accordance with the concept of “New Ukrainian School”.

6. Describe the character of competency-oriented motor exercises in a physical education class.

7. What are the components of pedagogical activity aimed at preserving pupils’ health at the lesson of physical education?

8. Outline the components of pedagogical activities aimed at developing pupils’ health at the lesson of physical education.

9. Identify the components of pedagogical activity aimed at forming pupils’ health culture at the lesson of physical education.

10. How do you understand the concept of “health-centered didactic system of a physical education teacher”?

11. What is your understanding of “motor exercise”?

Assessing the level of PE teachers’ awareness was carried out in the following way. For each question the participant was able to score from 0 to 2 points (0 – for zero or wrong answer; 1 – for the partially correct (full); 2 – for the correct answer (full)).

The arithmetic mean of the questionnaire results according to the score scale was calculated using the following formula (formula 1):

$$\bar{x} = \frac{1 \cdot x + 2 \cdot x}{n} \quad (1),$$

where

\bar{x} – the arithmetic mean

$(1 \cdot x)$ – answers scored “1”

$(2 \cdot x)$ – answers scored “2”;

n – total number of the participants.

The second part of the hypothesis (implementation of the new teaching approaches in the classroom as a result of the training experience) was verified through the analysis of practical physical education lessons. The lessons analyzed were delivered by the group of teachers who had shortly completed the training “New Physical Education in New Ukrainian School”. To determine the efficiency coefficient of a physical culture lesson (hereinafter referred to as EC) the experimental methodology developed by Akseonova (2016) was used. The EC is assessed against five indices:

I. Meeting the pupils’ basic needs of an individual.

II. Pedagogical tasks achievement.

III. Meeting the requirements for a modern physical education lesson.

IV. Development of key competencies.

V. Components of “health-centered didactic system of a physical education teacher”.

The maximum score for each of the indicators is 6. The indicators were evaluated on the following scale: 6 – completely fulfilled, rational approaches; 3 - partially fulfilled; 0 - not fulfilled. For each of the indicators, the arithmetic mean (formula 2) was calculated:

$$\bar{x}_1 = \frac{6 \cdot x_1 + 3 \cdot x_2}{n} \quad (2),$$

where

\bar{x}_1 – the arithmetic mean of the 1st indicator (line I);

$6 \cdot x_1$ – answers scored “6” for the 1st indicator;

$3 \cdot x_2$ – answers scored “3” for the 1st indicator;

n – total number of lessons

Similarly, calculations for the II-V indicators were carried out. The obtained mean values were summed up to determine the lesson EC.

In order to determine the effect of social-educational training each of the 512 participants was subjected to the lesson self-assessment. The lesson was delivered by a primary school teacher before they had undergone

the training. Consequently, 27 self-assessment samples were selected by random choice, the results of which are shown in Table 1. After the training, the lessons of those teachers, whose introspection was randomly selected at the preliminary stage of our research, were re-visited and reviewed. The results of the analysis of the lessons are demonstrated in Table 2.

3. Results

The following trend can be observed in the answers of the respondents concerning modern lesson of physical education in the first grade: (Figure 1).

Before the training most participants managed to provide the correct answer only to questions # 3 (the arithmetic mean - 1.707) and # 4 (the arithmetic mean - 1,789). The lowest result was demonstrated with reference to questions # 10 (0.113) and # 11 (0.158). The total awareness at the beginning of the training equaled 0.782. Accordingly, the results of the analysis have helped to determine the issues that should be addressed during the training.

The after-training results (shown in Figure 1) demonstrated positive dynamics concerning all the questions addressed in the survey. The most positive change can be seen with reference to questions # 5 (+1.201); # 7 (+1.189); # 10 (+1.388); # 11 (+1.306). The general indicator of teachers' after-training awareness of the modern physical education lesson in the first grade totalled 1,581, the positive effect resulting +0,809.

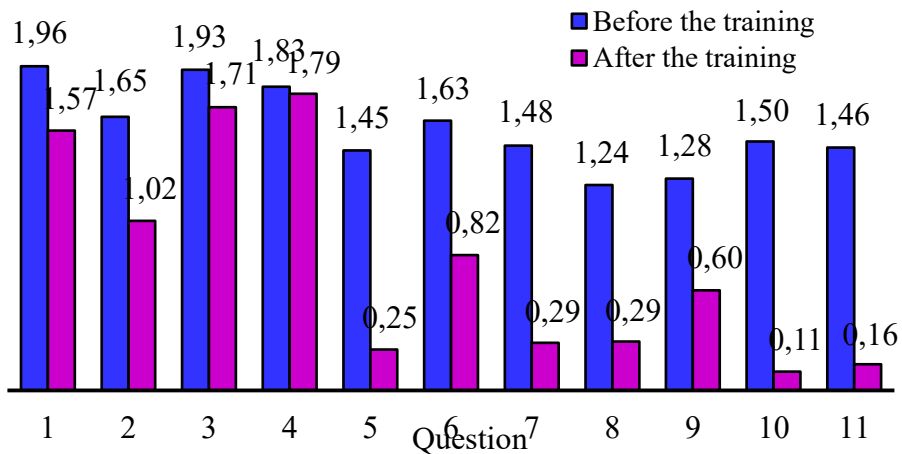


Fig. 1. Dynamics of the Arithmetic Mean of Assessing the Awareness of Teachers on Modern Physical Education Lesson in the First Form (before and after the training)

The results of self-assessment of physical education lessons by the experimental method of determining the efficiency of a lesson were as follows (Table 1).

None of the teachers ranked the highest score “6” according to the indicator I; only 3% of respondents awarded their lesson 3 points. About 77% of teachers gave very low self-assessment score to their own efforts to meet the basic needs of pupils' as individuals.

According to indicator II, 11% of respondents awarded themselves the highest score. At the same time, 37% - rated their work by “3 points”. This can be interpreted as 32% of teachers failing to achieve the teaching objectives in the classroom.

Only 25.9% of respondents rated “3 points” by the indicator III. Almost 70% were unable to identify their activities at the lesson with reference to this indicator.

7.4% of respondents scored “3 points” by indicator IV in their self-assessment. Accordingly, about 92% of them failed to give a positive assessment by this indicator.

By indicator V, “3 points” was awarded only by 40.7% of the respondents. Consequently, almost 60% of teachers did not rate their performance positively against this indicator.

As a result, taking into account the maximum self-assessment score of 30 points, the arithmetic mean result is 4.32.

Table 1. Arithmetic Mean of Efficiency Coefficient of Physical Education Lessons (based on the results of self-assessment before training)

Indicators, by which the teachers self-assessed the lessons	Number of points (n)		\bar{x}_i , calculated by Formula 2
	6 points, the teachers gave by each of the indicators (%)	3 points, the teachers gave by each of the indicators (%)	
I. Meeting the pupils' basic needs of an individual	0	9 lessons (33%)	1.00
II. Pedagogical tasks achievement	3 lessons (11%)	10 lessons (37%)	1.11
III. Meeting the requirements for a modern physical	0	7 lessons (25,9%)	0.77

education lesson

IV. Development of key competencies	0	2 lessons (7,4%)	0.22
V. Components of “health-centred didactic system of physical education teacher”	0	11 lessons (40,7%)	1.22
Total:			4.32

The analysis of 27 lessons for three consecutive months showed the following results (Table 2).

By Indicator I, the highest score of “6” was given to 14.8% of the lessons, “3 points” was given to 25.9% of the lessons. At the same time 59% of lessons by this indicator have not received a positive assessment.

By Indicator II, the highest score was given to 29.6% of the lessons; “3 points” to 40.7% of the lessons. Only 29.7% of the lessons according to self-assessment achieved none of the pedagogical tasks listed in the Standard Educational Program.

Almost 11% of the lessons fully met modern requirements and about 44% partly by Indicator III. 45% of the lessons received no positive assessment by this indicator.

33% of lessons rated “6 points” by Indicator IV; 37% to – “3 points”. Only 30% of the lessons demonstrated no appropriate pedagogical activities by the indicator.

14.8 % of lessons scored “6 points” by Indicator V, 33% of lessons were given “3 points”. At 52% of the lessons no aspect regarding this indicator was identified.

Table 2. Arithmetic Mean of Efficiency Coefficient of Physical Education Lessons (based on the results of self-assessment after training)

Indicators, by which the teachers self-assessed the lessons	Number of points (n)		\bar{x}_i , calculated by Formula 2
	6 points, the teachers gave by each of the indicators (%)	3 points, the teachers gave by each of the indicators (%)	
I. Satisfaction of the basic needs of the student's personality	4 lessons / 14.8%	7 lessons / 25.9%	1.6
II. Achievement of pedagogical tasks	8 lessons / 29.6%	11 lessons / 40.7%	3

III. Meeting the requirements for a modern physical education lesson	3 lessons / 11%	12 lessons / 44%	1.7
IV. Development of key competencies	9 lessons / 33%	10 lessons / 37%	3.1
V. Components of “health-centred didactic system of physical education teacher”	4 lessons / 14.8%	9 lessons / 33%	1.8
Total:			11.2

The comparison of arithmetic mean indicators of the efficiency coefficient of physical education lessons based on the results of self-assessment before and after training (Fig. 2) proved the second part of our hypothesis.

As Fig. 2 shows, all the indicators in the lesson analysis demonstrate positive dynamics. While the most significant one can be noticed by the following three indicators: II. Pedagogical tasks achievement of (+1,89); III. Meeting the requirements for a modern physical education lesson (+1); IV. Development of key competencies (+2,88). Thus, with maximum score 30 points, the arithmetic mean is 11.2. This figure is 6.88 higher than the previous one. Therefore, the presented analytical data substantiate positive effect of the social-educational training “New Physical education for the New Ukrainian School”, which proves our hypothesis.

The efficiency evaluation of the presented training was validated through statistical processing of the obtained figures. At the initial stage, the analysis proved that statistical sampling was evenly distributed within skewness (A) and kurtosis (E). The second stage evaluated the data dispersion equality according Fisher Criterion (F). Empiric $F 1.65 \leq$ Table F 1.789 ($P=0.05$). The results prove the uniformity of data dispersion. This was followed by correlation analysis of the experiment data, which demonstrated positive correlation of $R=0.107$. This substantiated the choice of the comparative analysis of samples against Student criterion. The comparative analysis of the experimental data has demonstrated credible variation between the figures at the pre-training stage and after-training (t Student – empirical 2.32, $P \leq 0.05$).

4. Discussion

The thinking behind the conducted research referred to the fact that the first-grade teaching activity in the New Ukrainian School is targeted at the development of emotional and social intelligence in pupils and teachers. These types of intelligence are the basis of social competence. Their combination contributes to the successful performance of the individual in life, and predetermines the most important ability of effective interpersonal interaction. People with developed social and emotional intelligence have proved to be able to navigate in social situations, identify correctly personality features and emotional states of other people. This helps to choose the repertoire of social roles, adequate ways of communication and implement them in the process of interaction, overcome certain stereotypes of teachers, which lead to poor motivation in professional activities. Consequently, the appropriate combination of social and emotional intelligence provides deepening of effective socio-practical knowledge. Focusing on socio-emotional goal, in turn, is due to contribute to the achievement of the didactic goal and fulfilment of educational tasks by their priorities.



Fig. 2. Comparison of Arithmetic Mean Indicators of the Efficiency Coefficient of Physical Education Lesson

Thus, the key aspects of the purpose of physical education teaching in the first form includes all-rounded physical development, development of key competencies and values, nurturing patriotism and promoting physical fitness. The key teachers’ objectives are defined as follows: understanding of the significance of PE classes; awareness of a variety of motor activities; developing physical fitness; observing the requirements of safe and fair game; motivation in the achievements of athletes; possessing a variety of information search tools; establishing cause-and-effect; applying skills of self-control and self-evaluation; creative implementation of the acquired experience; communication and social interaction; emotional and evaluative attitude.

These key aspects necessitate the development of social competence bearing in mind its umbrella structure. We perceive social competence as a generalizing concept for a set of competencies. In this framework, social competence always acts as a stable personality orientation for interaction, cooperation, and harmonious, fair interests balance principle. It demonstrated strong presence in all spheres of individual’s life, including physical development. Social competence epitomizes individualization and at the same time stands out as an individual form of appropriation of various social relations (Varetska, 2015). Therefore, developed social competence provides the ability and willingness to discover and develop ways to solve a new paradigm of social and professional tasks. It helps to resolve nonviolent conflicts, apply social resources to establish natural social connections and social self-development. Additionally, social competence occupies the leading position in taking effective individual and group decisions in social situations, taking into account social significance and personal responsibility for the results of professional activity. Thus, the content of social competence is reflected in the outlined vectors of pedagogics. They refer to the content of educational process at the training, the goals and objectives of teaching physical education to primary school pupils, covered by the abovementioned key social-educational aspects.

Focusing on the identified vectors of pedagogics, the teacher should learn how to appropriately formulate the lesson objectives. These aspects, as well as the pedagogical principles LAMPE – “Learning About Meaningful Physical Education” (Ní Chróinín et al., 2017), have become a priority in the process of developing the training program “New Physical education for the New Ukrainian School”.

The research has been approved by the Academic Council of Public Educational Institution “Zaporizhzhia Regional Institute of Post Graduate Pedagogical Education” Zaporizhzhia Regional Council.(protocol #.1. from

19.03.2018). The research was conducted with the informed consent of the participants.

The three-day training “New Physical education for the New Ukrainian School” is designed to cover 24 academic hours. It consists of three sessions covering five topics with nine follow-up exercises. Each day of the training starts with the presentation of a contemporary health-improving technique or fitness technology. The participants are randomly congregated into groups during their registration for the training to further attend the scheduled didactic events.

The first session of the first day of the training, entitled “Why Should We Change?” covers two topics: # 1 “Stepping Aside from the Rudimentary Method of Physical Education” (exercise “Causes and Effects”) and #2 “Compulsory Learning Outcomes and Students’ Competencies” (exercises “Z + A”, “COT” (competency-oriented task), “Reverse Mapping”).

On the first day of the training, the majority of participants demonstrated their keen interest in developing the skills necessary to identifying the causes of modern children health problems (respiratory conditions, weight, mental and behavioral conditions, socialization, diseases of the musculoskeletal system, injuries, cardiovascular issues). They participants also showed interest in identifying the negative trends in physical education methodology and classroom activities, which contribute to health issues. This objective was covered with “Causes and Effects” exercise. The experience revealed that most teachers had been consistently observing negative dynamics in children’s health. At the same time, they tend to attribute the blame primarily on parents and healthcare system. The upcoming “Z+A” exercise received positive feedback due to the sufficient level of teachers' awareness regarding the modern children personality profiles. It turned out that at the lessons of physical education, a significant number of teachers had identified a number of “the new generation” features most of the young pupils. However, this fact did not entail any changes in teacher’s pedagogical activity. Overall participation in the training exercises allowed the participants: 1) to clearly identify the characteristics of the New Ukrainian school; 2) to realize the fact, that the new age children are totally different, therefore, the traditional methodology of the lesson is obsolete.

Competency-oriented pedagogical paradigm involves educational activities aimed at forming key competencies in pupils. Therefore, “COT” (competency-oriented task) exercises and “Reverse Mapping” were aimed at

developing the skills of modelling competence-oriented motor tasks for pupils at physical education class.

In order to work out the skills of modelling competency-oriented motor tasks for students in the classroom, the contents of the trainings included elements of master classes conducted by the trainer (Table 3).

Such activities are completely new in the framework of teachers' training. The participants of the training showed the greatest resistance to the need to step aside from creating artificial competition in the classroom and teach the children “the correct exercising technique”. It should be noted, that the latter does not enhance interaction, group work and partnerships, but, on the contrary, promotes confrontation instead. However, the need to determine the aim of motor activities, key competences and special features of modern generation has changed the stereotyped attitude of almost a third of the participants in the training.

The second session of the second day entitled “What shall we do?” covered theme # 3 “Exercises should be complex and appealing” (exercises “Special to Special”, “VMS” (vital motor skills)) and topic # 4 “Method of Motor Activities” (exercise “Motion Puzzles”). The most difficult task for the participants was to change their vision of their own mission at the lesson. A small number of teachers finally realized that teaching children the technique of sports activities is not objective of “physical education”. A great number of participants agreed that teaching children natural movements is meaningless, and the methodology for improving vital motor skills (“VMS” - balance, rhythm, orientation in space, time orientation) is relevant instead.

Table 3. List of Competency-oriented Activities Included in the Training as Elements of Master Classes from the Trainer

Competency-oriented Motor Activity	Key Competency, the Activity is Aimed at
“Correct a Mistake”; “Colorful Movements”	Proficiency in the state language; communication in native and foreign languages
“Warm-up in Concentric Circles”; “From my initial position your exercise”; “My Game – My Link”	Creativity
“Geometric Exercises”; “Surprise-Teach”	Entrepreneurship and financial literacy
“Physical Journey”; “Methodical Pinwheel”; “Secret Movement”	Civic and social competencies
“Complicate-Facilitate”; “Chamomile	Cultural competency

Races”	
“Unusual Morning Exercises”; “Motor Memory”	Life-long learning
“Motion Quest”; “Nine Forces”	Competency in the field of natural sciences, technology and technology
“Calorimeter”	Ecological and mathematical competency
“Seven Minutes”	Information and communication competency

Almost all the participants changed their opinion regarding physical activity of children with different health conditions. All children should fulfil a certain set of exercises without exception, though special fitness zones should be assigned according to individual indicators (cardio training should become as a compulsory component of a modern lesson). Moreover, 35-40 minutes of the lesson three times a week should be happy and desired pleasant surprise for each child. Gradually, most participants learned to model the motor tasks for students, aimed not only at the formation of certain competencies. Teachers focused on the activities with a training effect, performed in a game format and social interaction, containing elements of research and creativity.

The program of the third day covered the third session “How to do?” The participants worked on the topic # 5 “Modern Lesson of Physical education”, carried out the exercises “Plan!” and “Physical education without Barriers”.

Those participants, who were able to overcome their own thinking stereotypes during the previous two days of training, demonstrated a clear tendency for the immediate implementation of the developed skills in their own pedagogical activities. They demonstrated non-standard techniques for planning a physical education lesson (in the form of mind card) and tried to logically organize all activities in the classroom. Teachers have modelled the options for performing certain motor activities by students of different typological groups. The above-mentioned effects intensified after the “No Barriers” exercise. During its fulfilment, the participants of the training mastered the strategies of inclusive physical education. They were convinced of the urgent need to change the teaching tasks for their students in such a way that each of them had the opportunity to be successful, more perfect, and competent.

5. Conclusions

Our research has proved positive social and educational effects of the training “New Physical education for New Ukrainian School” concerning teachers’ awareness of modern requirements (+0.809), and the efficiency of physical education lessons (+6.9). It is noteworthy, that most teachers embraced the social value of physical education lessons, and were able to reconsider their social goals and apply new approaches, which, in turn, contributed their didactic success. There is a direct dependence between the availability of scientific research of contemporary authors on professional aspects (Figure 1), and an indicator of teachers’ awareness. The issues in the focus of attention in the system of postgraduate pedagogical education outlined in the paper are the methods of developing students’ key competencies in physical education classes and health-centered didactic system of physical education teacher. The tested diagnostic tools (questionnaires for teachers and evaluating the physical education lessons efficiency) used as a means to monitor the effectiveness of teachers’ training in the system of postgraduate pedagogical education, has proved to be appropriate and relevant.

The fact of meeting the research objectives, proving its hypothesis, credibility and effectiveness of the training “New Physical education for New Ukrainian School” is sustained by statistical analysis of the obtained data. The presented experimental training was successfully introduced in postgraduate educational process.

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