

Десета международна
научна конференция

СЪВРЕМЕННИ
ТЕНДЕНЦИИ
НА ФИЗИЧЕСКОТО
ВЪЗПИТАНИЕ
И СПОРТА

Университетско издателство
„Св. Климент Охридски“

ДЕСЕТА
МЕЖДУНАРОДНА
НАУЧНА КОНФЕРЕНЦИЯ

СЪВРЕМЕННИ ТЕНДЕНЦИИ НА ФИЗИЧЕСКОТО ВЪЗПИТАНИЕ И СПОРТА

Софийски университет „Св. Климент Охридски“
Департамент по спорт
Университетско издателство „Св. Климент Охридски“
София, 2018

Сборникът се издава
по Проект с частно финансиране на научни изследвания
в Софийския университет „Св. Климент Охридски“ –
№ 8010-75/19.04.2018 г.

Редакционна колегия

проф. д-р Анжелина Янева, съставител и редактор

Елица Стоянова, коректор

Научен комитет

проф. Анжелина Янева, д-р – председател

проф. Гмилия Рангелова, д-р – ФП – член

проф. Росица Пенкова, д-р – ДИВВ – член

проф. Лариса Митшина, д-р – ПФ – Тула – Русия – член

проф. Инна Федотовско, д-р – ППВ – Тула – Русия – член

проф. Тамара Захарук, кат. – ПФ – Седлице – Полша – член

доц. Биляна Попеска, д-р – ПФ – ВИД – Македония – член

Елица Стоянова, д-р – ДС – технически сътрудник

© 2018 Анжелина Янева-Проколова, съставител

© 2018 Университетско издателство „Св. Климент Охридски“

ISSN 1314-2275

ФИЗИЧЕСКОТО ВЪЗПИТАНИЕ, СПОРТЪТ И РЕКРЕАЦИЯТА В ОБРАЗОВАТЕЛНАТА СИСТЕМА

OPINIONS AND POSSIBILITIES FOR INTERVENTION IN PHYSICAL AND HEALTH OF CLASSROOM TEACHERS IN PRIMARY EDUCATION

POPEKA BIJANA & SIVEVSKA DESPINA

БИЛЯНА ПОПЕСКА, ДЕСПИНА СИВЕВСКА. МНЕНИЯТА И ВЪЗМОЖНОСТИ ЗА ИНТЕРВЕНЦИЯ В УЧЕБНАТА ПРОГРАМА „ФИЗИЧЕСКО И ЗДРАВНО ОБРАЗОВАНИЕ“ – РАЗЛИКИ, СВЪРЗАНИ С ТЯХНОТО ОБРАЗОВАНИЕ НА УЧИТЕЛИТЕ НА ГРАЖДАНСКИТЕ УЧИЛИЩА

Абстракт: Учителите са ключовите фактори за успешната реализация на учебната програма по физическо образование и реализацията на процеса на физическо и здравно образование. Учителите в класната стая имат различен образователен фон, който инициира нашия интерес, за да определи възможните различия, които могат да възникнат в опциите на учителите, свързани с настоящата структура на учебната програма по физическо образование и възможностите за намеса и подобрене. Изследването е осъществено на извадка от 134 начални учители. Бе приложен специално създаден въпросник. Резултатите бяха анализирани с помощта на описателна статистика и непараметрична статистика. Според резултатите учителите по принцип са съгласни, че текущата учебна програма по физическо образование е в съответствие с общата образователна цел и има положително въздействие върху цялостното развитие на децата. Статистически значими различия са постигнати само в две точки: учебният план за физическо образование е ясно дефиниран, конкретен и лесен за внедряване. Предложеното съдържание в учебния план на програмата е подходящо за възрастта на ученика и според неговите интереси, предпочитания и възможности.

Abstract: Teachers are the key factors for successful implementation of PHE curriculum and realization of PHE process. Classroom teachers has different educational background that initiated our interest to determine the possible differences that can occur in teacher's options related with current structure of PHE curriculum and possibilities for intervention and improvement. The study was realized at sample of 134 elementary primary school teachers. Special designed questioner was applied. Results were analyzed using descriptive statistics and non-parametric statistics. According the results, in general teachers agree that current PHE curriculum is in a line with general educational goal and has positive impact of overall development of the children. Statistical significant differences were obtained only in two items: PHE curriculum is clearly defined, concrete and easy for implementation and Suggested contents in PHE curriculum are appropriate to student's age and according their interests, preferences and possibilities.

Ключови думи: начално образование, учители в класната стая, учебна програма, физическо възпитание

Key Words: initial education, classroom teachers, curriculum, physical education

Introduction

Physical education is an integral part of the educational system, aimed to impact not only on physical and motor development but also at all developmental segments (cognitive, socio – emotional). Furthermore, physical education has effect on overall holistic development of the children, creation of lifelong habits for healthy and active lifestyle, personal development and social inclusion. The values and importance of quality physical education are recognized by many international institutions such as UNESCO, United Nations, European Commission.

UNESCO recognize physical education as “the most effective means of providing all children and youth with skills, attitude, values, knowledge and understanding for lifelong participation in society” [20]. The realization of noted goals of physical education is closely related with effective planning, organization and realization of PE teaching process, the established PE curriculum and the quality of the work of teachers as responsible for effectiveness of this process.

Effectiveness and quality of physical education teaching process is determined by many factors. One of the key factor in this process are teachers. Furthermore, European Commission, Expert Group on Health-Enhancing Physical Activity recognize teachers as key agents for putting physical and sport policies into practice [6]. Teachers are attributed a crucial role in fulfilling quality education, based on their initial knowledge and upgraded with several important group of competences. In this regard, teachers, particularly their education, competences and motivation are the key factors for successful implementation of PHE curriculum and realization of PHE process. Moreover, teacher`s experiences and opinions are important not only from the aspect of continuous realization of curriculum, but also from the aspect of possible changes and improvement of the curriculum. Namely, teachers are the one that are “living the curriculum” and they are most familiar with all weaknesses and strengths of it. Therefore, their opinions are more than needed when educational reforms are planned.

Speaking about reforms, currently in Macedonia is ongoing a process of reforms in primary education that also attributed to the Physical and health education. Current curriculum and delivery of PHE teaching process are two targeted points for reforming. The current curriculum was created in 2007 when nine-year compulsory education in Republic of Macedonia was established. With this organization, the system of primary education was organized in three cycles: first cycle, children from I to III grade (children from minimum 5,8 years – 8 years of age); second cycle from IV to VI grade (age 9–11 years) and third cycle from VIIth, VIIIth and IXth grade (12–14 years of age) [10].

The subject is named *Physical and health education* and is realized with three classes per week in all nine grades. The elementary phase of primary education is from 1th to 5th grade. At this level, generalist classroom teachers teach all subjects including Physical and health education. Generalist teachers are educated at Teaching Faculties and Faculty of Philosophy, particularly Institute for Pedagogy. In the past, before establishment of teaching Faculties, all teachers were educated at Teaching Academies. In 60`s teachers education was put on a higher, university level that leads to transformation of Teaching Academies in Teaching Faculties. The education at these institutions is quite different regarded the knowledge for bases of physical education, methodical and didactical aspects of realization of PHE teaching process, knowledge for development characteristics of children in different age periods, PHE contents and level of practical preparation [9]. Namely, subjects related with bases of physical education, methodic and didactics of physical education as well as methodical practice in schools at physical education classes of Teaching Academies. The number of these subjects, hours of theoretic lectures, practical exercises, methodical practice and representations per semester was greater at teaching Faculties. Such subjects are completely missing in study programs at Institute of Pedagogy where future pedagogies are educated, although the current Law for primary education gives them possibility to be classroom teachers that also teach PHE.

Considering these differences in educational background of classroom teachers as well as their equal duties related with PHE teaching process, we were interested in possible differences that can occur in teacher's options related with current structure of PHE curriculum. Moreover, teacher's experiences and feedback from practical work and everyday teaching are important for future improvement of teaching process including interventions in current curriculum and possibilities interventions and upgrading.

Method of work

Subject of this study are primary school teachers in elementary school (1th to 5th grade) and their attitudes and opinions for realization of physical and health education in primary education. The *purpose* of the study is to determine the differences in attitudes and opinions of elementary primary school teachers with different level of initial education related to realization of PHE teaching process.

The study sample was comprised from 134 elementary primary school teachers from 15 primary schools located in five different cities in Republic of Macedonia. Selected school have approximately equal material and technical conditions and facilities and have approximately equal social structure of the students. Presented results are part for larger study aimed to determine prob-

lems, conditions and facilities for realization of PHE teaching process in primary education and give suggestions for common actions and improvement of current condition. The research was realized in May/June, 2016/2017.

For the purposes of the study, we used specially designed questioner. Beside general information (school, gender, grade in current study year, education, working experiences), the questioner is comprised from close type questions organized as estimation scale where teachers determined the level of agreement or disagreement with suggested items (completely disagree, not agree, agree, completely agree). Obtained results are analyzed and presented using descriptive statistics: frequencies (f), percents (%) and non-parametric statistics: F-test. The data from the research were calculated using the statistical package SPSS 19.

Results and discussion The study sample was comprised from 134 primary school teachers from first to fifth grade that teaches all subjects, including physical and health education. From the total sample of respondents, 68,5% are females and 31,5% males. According working experience, most of the respondents have working experience from 6-15 years (31%), 27% have working experience over 25 years and 16-25 years, while 13,8% have experience in teaching 1-5 years.

Regarding the initial education of the interviewed teachers, 58% have finished Teaching faculty – primary education, 13,2% have finished pedagogic academy and 5,2% have finished Faculty of Philosophy, Institute of Pedagogy.

Differences in responses of the teachers were analyzed with F-test. Obtained results did not show significant differences in most of analyzed responses that leads to conclusion that the type of initial education of the teachers does not have a significant role regarding their attitudes for implementation and effects of PHE curriculum. Statistical significant differences are obtained only in two items: *PHE curriculum is clearly defined, concrete and easy for implementation* and *Suggested contents in PHE curriculum are appropriate to student's age and according their interests, preferences and possibilities*.

For the item *PHE curriculum is clearly defined, concrete and easy for implementation*, most of the teachers have positive attitude, particularly 41,4% agree that the current curriculum is clear defined and easy to be implemented. Statistical significant differences on level 0,05 are noted between the group of teachers that had their education at Institute of pedagogy for whom the PHE curriculum is clear and easy to use compared with teachers that have finished Pedagogic academy that disagree with this statement.

Statistical significant differences at 0,01 level of significance are noted for the item *Suggested contents in PHE curriculum are appropriate to student's age and according their interests, preferences and possibilities for children*. Differences are

noted between teachers that had their initial education at Institute of Pedagogy that agree that contents in PHE curriculum are according children's possibilities of children compared with teachers that have finished

Academy for teachers that disagree with this opinion. Differences between two categories of teachers are expected considering the differences in study programs at this institutions and time

difference in period of realization. In this regard, we should underline that most of the teachers that are educated at Teachers academy are teachers with long working experience, considering the fact that teachers academies were replaced with Teaching faculties few decades ago. From the other hand, student at Institute of Pedagogy are educated for pedagogists with opportunity to be classroom teachers. The issue here is that in their study programs, there is an evident lack of contents related with physical and health education and methodic of physical education. Such conditions in educational background of teachers that are placed to be in position to work at same working position could be considered as important for obtained differences. Furthermore, the evident lack of specific preparation and education for PHE teaching process could also lead to lower quality in PHE teaching process and poor results in expected results. This could be overcome with several different actions. Namely, in the last few years several changes are made in study programs for teaching faculties for initial education of the teachers. One of the changes is increasing the time for studies, from two year studies at teaching academies to current four year studies at teaching faculties and acquisition of 240 ECTS. Furthermore, study programs are improved and enriched with contents adapted to requirement of contemporary education, new technologies, modern way of living and based on study results for possibilities of holistic development of children in primary school period. Increased number of hours for practical work and school practice could be also a step forward in improvement of quality of teacher's education [8].

Table 1. Differences in teachers answers for PHE teaching process, based on their initial education (F- test)

Items		Sum of Squares	df	Mean Square	F	Sig.
PHE curriculum is clearly defined, concrete and easy for implementation	Between Groups	8,148	3	2,716	4,504	,005*
	Within Groups	78,389	130	,603		
	Total	86,537	133			
<i>Suggested contents in PHE curriculum are appropriate to student's age and according their interests, preferences and possibilities.</i>	Between Groups	10,172	3	3,391	7,255	,000**
	Within Groups	60,753	130	,467		
	Total	70,925	133			

*p < 0,05 **p < 0,01

Related to other items in the questioner, there are no significant differences between analyzed categories of teachers. Furthermore, a high percent of teachers agree with presented statements. For the statement: *Suggested contents in PHE curriculum are oriented toward development of children motor abilities*, 42,5% agree and 21,8% completely agree that contents in current PHE curriculum have positive impact on development of children's motor abilities. High percent of interviewed teachers, particularly 34,4% agree 31% completely agree that contents in current PHE curriculum have positive effect of all developmental segments and have positive impact of holistic overall development of the children. In this regard, findings from numerous studies emphasize the positive relation between physical activity and holistic development [3], particularly effects of physical activity on motor development and physical fitness [5], mental functioning [19, 22] cognition, attention, learning [4, 7], academic achievement [18, 19] and classroom behavior of the children. Most of interviewed teachers also agree (44,3% agree and 25% completely agree) that contents in PHE curriculum give possibility for establishment of integration – correlation relations among PHE and other subjects [16, 17].

Regarded to creativity of the teachers, it's manifestation through PHE contents and their ability to find innovative approaches in realization of PHE teaching process, 33,9% agree and 32,8% completely agree that this is possible to be done. When refereeing to PHE teaching process, the creativity of the teacher and his/hers flexibility and preparedness to involve some innovative approaches in their everyday work can be noticed mainly in situation when there is a lack of material conditions and equipment, lack of facilities for sport, use of technology etc. In this regard, teachers use different strategies that facilitate their work by using unspecific equipment [13], use the outdoor and school facilities as playground for PHE classes [14, 15] as well as use of IT technology in their everyday work mainly as a tool for demonstration, in the process of learning etc [16]. In this regard, our findings from

previous studies related to teachers initial education and years of working experiences suggest and effectiveness of using innovations, suggest that age of the teachers and their working experience are not determining factor for use of technology at PHE classes [17].

The health component is one of the segments that should be realized during PHE teaching process. Regarded this, 35,6% of teachers agree and 31,6% completely agree that is easy to be accomplished through PHE curriculum.

According the structure of current PHE curriculum, one of the important implemented elements is cooperation with parents, especially in the segment of realization of thematic union that requires parent's assistance. In this regard, 32,2 % agree and 26% completely agree that this contents are realized without any problems and that they have full support from parents. Parents support and cooperation between parents and teachers is important in every segment of children's education from many aspects. One of those aspects is also related with PHE considering that habits learned at school can be transferred at home and opposite way. In this regard, this cooperation and parents involvement in teaching process is important not just from the aspect of technical support but also from the aspect of promotion of health and active lifestyle and creation of live – long habits [1, 2].

Summarized results from answers of interviewed teachers emphasize that in general, regarded their different initial education and educational background, teachers agree that current PHE curriculum is in a line with general educational goal and has positive impact of overall development of the children.

Conclusion

Effectiveness and quality of physical education teaching process is determined by many factors. One of the key factor in this process are teachers. Teachers are attributed a crucial role in fulfilling quality education, based on their initial knowledge and upgraded with several important group of competences. Teacher`s experiences and opinions are important not only from the aspect of continuous realization of curriculum, but also from the aspect of possible changes and improvement of the curriculum. Namely, teachers are the one that are "living the curriculum" and they are most familiar with all weaknesses and strengths of it. Therefore, their opinions are more than needed when educational reforms are planned. Purpose of our study was to determine teachers opinions for current PHE curriculum and possible differences that may occur between teachers based on their educational background. Based on obtained results, it could be concluded that regardless the educational background, teachers agree that current PHE program for elementary primary edu-

cation is complementary to children's abilities and its proper realization gives the expected effects on development of children motor abilities and overall holistic development. Teachers find the current program easy to be connected and correlated with other teaching subjects and consider that gives possibilities to teachers to manifest their creative abilities in a sense of using innovative approaches, unspecific equipment and tools etc. Differences are obtained only in following two items: PHE curriculum is clearly defined, concrete and easy for implementation and Suggested contents in PHE curriculum are appropriate to student's age and according their interests, preferences and possibilities. Differences in study programs during initial education and number of theoretic lectures and practical exercises related with methodic of PE could be one of the explanation for the differences, especially for the first item.

REFERENCES

1. Bronikowski, M.; Bronikowska, M.; Pluta, B.; Maciaszek, J.; Tomczak, M.; Glapa, A. (2016). Positive Impact on Physical Activity and Health Behaviour Changes of a 15-Week Family Focused Intervention Program: "Juniors for Seniors". *Biomed Res Int.* . DOI: 10,1155/2016/5489348.
2. Brown, H.E.; Atkin, A.J.; Panter, J.; Wong, G.; Chinapaw, M.J.; van Sluijs, E.M.(2016). Family-based interventions to increase physical activity in children: a systematic review, meta-analysis and realist synthesis. *Obes Rev.*, 17, 345-60. DOI: 10,1111/obr,12362.
3. Chin, M.K.; Edginton, C.R.; Tang, M.S. (2012), School Physical Education and Health: A Model of Best Practice, Integrating Local Context with Global Trends. *The Global Journal of Health and Physical Education Pedagog.* 1, 251-282.
4. Donnelly JE, Hillman CH, Castelli D, Etnier JL, Lee S, Tomporowski P, Lambourne K, Szabo-Reed AN. Physical activity, fitness, cognitive function, and academic achievement in children: A systematic review. *Med. Sci. Sports Exerc.* 2016;48:1197.
5. Donnelly JE, Hillman CH, Greene JL, Hansen DM, Gibson, CA, Sullivan DK , Poggi J, Mayo MS, Smith BK, Lambourne K, Herrmann SD, Scudder M, Betts JL, Honas JJ, Washburn RA. Physical activity and academic achievement across the curriculum: Results from a 3-year cluster-randomized trial. *Prev Med.* 2017;99:140-145.
6. EU Work Plan for Sport 2014–2017. (2015), Expert Group on Health- enhancing physical activity, European Commission.
7. Hillman CH, Erickson KI, Hatfield BD. Run for your life! Childhood physical activity effects on brain and cognition. *Kinesiology Review* 2017;6:12-21. doi: <https://doi.org/10,1123/kr,2016-0034>.
8. Jovanova-Mitkovska, Snezana, Popeska, Biljana & Smilkov Nikola (2015). Practical teaching at the faculty of educational sciences-sometimes, today at future. Practicum of future pedagogue's teachers and kindergarten teachers in multicultural environments-experiences and challenges": 27-29 November, 2014, Skopje. – Skopje: Faculty of Philosophy, 2015. pp 101-114 Skopje, Macedonia. ISBN 978-608-238-086-5
9. Malcev, M., & Popeska, B. (2017). Primary school physical education in Republic of Macedonia: condition and challenges. In the Book *Physical Education in Primary School. Researches – best practices – Situation*, Colella, D., Antala, B & Epifani, S., Eds.; Pensa MultiMedia, 2017; pp. 447–461; ISBN 978-88-6760-474-6.
10. Ministry of education and sciences of Republic of Macedonia. (2007), Conception for nine years' compulsory primary education.

11. Popeska, B., & Jovanova-Mitkovska, S. (2016) Integration and correlation between the contents of teaching subjects – physical education and society in primary teaching. *Knowledge – International Journal, Scientific and Applicative Papers*, 12,1, pp. 57-63. ISSN 1857-92
12. Popeska, B., & Jovanova-Mitkovska, S. (2016) Integration and correlation concepts in physical education. *Research in Kinesiology*, 44(2), 257–261 <http://eprints.ugd.edu.mk/id/eprint/17151>.
13. Попеска, Б., & Митевска – Петрушева, К (2014) Реализација на наставата по физичко и здравствено образование со примена на нестандартни справи и реквизити, Во зборник на трудови: Научно – стручна конференција со меѓународен карактер „Современото воспитание и образование: состојби, предизвици и перспективи“, 14 Мај, стр: 87–94, Штип: Р.Македонија.
14. Popeska, B., Klincarov, I., Mitevski, O., & Nikovski, G. (2017). Common obstacles in realization of physical education teaching process in primary education in Republic of Macedonia. *12th FIEP European Congress Changes in Childhood and Adolescence: Current Challenges for Physical Education*, 13,09–16,09,2017, Luxemburg, University of Luxemburg, (pp. 56).
15. Попеска, Б. (2016). Моќностите на училницата за реализација на настава по физичко и здравствено образование. Во *Зборник на трудови од Научно – стручна трибина „Учителот и средината за учење и развој“*, (стр. 83–91), 02,10,2015, ISBN 978-608-244-365-2, Штип: Факултет за образовни науки, Универзитет „Гоце Делчев“.
16. Popeska, B., Jovanova-Mitkovska, S., & Sivevska, D. (2017). Implementation of technology in physical education teaching process based on teachers experiences. In: *BRICCESS 2017–BRICCESS Inagural Conference of Exercise and Sport Science*, 29 Nov – 2 Dec, 2017, Santos, Brazil.
17. Popeska, B., Sivevska, D., & Jovanova-Mitkovska, S. (2017). Working experience of teachers as a predictor for effective use of ict in physical education teaching process. *9th International Scientific Conference "Modern Tendencies in Physical Education and Sport"*, 10 November, 2017, Department of Sport, Sofia University, Sofia, Bulgaria.
18. Rasberry CN, Lee SM, Robin L, Laris BA, Russell LA, Coyle KK, Nihiser AJ. The association between school-based physical activity, including physical education, and academic performance: A systematic review of the literature. *Prev. Med.* 2011;52:S10-S20.
19. Tomporowski PD, Lambourne K, Okumura MS. Physical activity interventions and children`s mental function: an introduction and overview. *Prev. Med.* 2011;52(Suppl,1):S3-S9. doi:10.1016/j.ypmed,2011,01,028.PMID:21420981.
20. Quality Physical Education (QPE). (2015). United nations Educational, Scientific and Cultural Organziation, Paris: Social and human sciences sector.
21. Watson A, Timperio A, Brown H, Best K, Hesketh KD. Effect of classroom-based physical activity interventions on academic and physical activity outcomes: a systematic review and meta-analysis. *Int J Behav Nutr Phys Act.* 2017;14:114. doi: 10.1186/s12966-017-0569-9.
22. Voss M, Nagamatsu L, Liu-Ambrose T, Kramer A. Exercise, brain, and cognition across the life span. *J. Appl. Psychol.* 2011;111(5):1505-513. doi: 10.1152/jappphysiol,00210,2011.

Popeska Biljana

Faculty of educational sciences,
Associate Professor, Ph.D,
E – mail: biljana.popeska@ugd.edu.mk

About the author (s)

Sivevska Despina

Faculty of educational sciences
Associate Professor, Ph.D,
E – mail: despina.sivevska@ugd.edu.mk