

DIFFERENT TEACHING STRATEGIES AND METHODS APPLIED AT PHE CLASSES –EXPERIENCES OF CLASSROOM TEACHERS

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(Original scientific paper)

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Abstract

Effectiveness of physical education teaching process and quality of physical education classes depends on many factors. Well-selected and correctly applied teaching strategies and methods could have positive impact of the quality and effectiveness of Physical and health education (PHE) teaching process. The purpose of the study is to determine different teaching strategies and methods that teachers used physical education classes. Study sample was comprised from 134 generalist classroom teachers from 15 primary schools in Macedonia. Teachers were included in the study that examined their attitudes regarded use of different strategies and methods that they applied in different phases at PHE classes. According the obtained results, nearly all teachers (93%) use movement games on regular bases in first and last phase of PHE classes, 83% use them in main part. Traditional movement games are often implemented in PHE classes (44%). Music and technology are mainly used in main part of PHE classes by 43% of teachers, while more than half of interviewed teachers use classroom based active breaks with movements at another subject. In summary, we would underline that movement games, music, traditional games, technology, different tools that integrate PHE and other subject contents are some of the strategies that teachers use at PHE classes. Such strategies implemented at PHE teaching process could benefit with greater effectiveness, interest and active participation of children.

Key words: *effectiveness, approaches, physical education, teachers*

Introduction

As part of the educational system, physical education has important impact of child development, not only in sense of achieving motor competences and improve motor movement and abilities but also in supporting overall development including cognitive, social, emotional aspects. In their agenda for providing quality education, UNESCO recognized 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” (Quality PE, 2015). According European Physical Education Association (EUPEA), physical education is the only compulsory subject through which children can learn movement motor skills and acquire knowledge to participate in variety of physical activities Quality physical education is unique in providing children and young people with opportunity to develop self – management skills to become independent, physically active adults (EUPEA statement, 2020). Physical education is not only body movement or exercise. Values of PE are not only related with physical and motor development but also refereeing to good health, personal development and social inclusion (Eurydice report, 2013). These values are also underlined in national conception for education (Conception for nine-year compulsory education, 2007) and physical and health education (PHE) curriculum, suggesting that PHE curriculum is realized with different physical education contents and fundamental motor activities that activates the locomotor system and have a positive impact and influence on symmetric growth and proper holistic development of the children, improving their physical and motor abilities, promoting health and active lifestyle. This general goal of PHE curriculum is conceptualized in particular aims realized in following three categories: segment of movement (aimed to acquire movement abilities and habits, develop motor abilities), segment

of socialization with emphasis on social and emotional effects from PE contents, effect of building character and moral values and segment of health including activities for promotion and maintenance of health, healthy and active lifestyle and habits for quality life supported by physical activity (Klincarov, 2011).

The goals defined in curriculum are just general frames and they project the achievements that should be accomplished during PHE teaching process. This process is complex and determined by many different factors. Quality physical education requires contents suggested and selected according to children's needs, their development characteristics and according to children's age; activities that will be selected based on children's possibilities but also in accordance to their interests; properly selected methods of work, pedagogical approaches and teaching strategies chosen by the age of children and last but not less important, quality, creative and educated teacher, with competences and knowledge for work with children in different age periods. When referring to primary education, this means educated for work with children at early school period. All these elements integrated together could give positive effects and achieve goals of physical education. In this regard, well-selected and correctly applied teaching strategies and methods could have positive impact on the quality and effectiveness of PHE teaching process. Having these in mind we were interested in teacher experiences for different strategies that they use and which are not common teaching practice. The idea was to focus on strategies that have impact not only on motor movements and behavior but also on other aspects and segments of influence of PHE teaching process. In this regard, our intention was.

Materials & methods

The purpose of the study was to determine different teaching strategies and methods that teachers use at physical education classes. The study sample was comprised of 134 generalist classroom teachers that deliver physical and health education in the fundamental stage of primary education. The study was conducted in 15 primary schools in five different cities in the Republic of Macedonia. The applied research method was descriptive-analytical and descriptive-explicative method. Teachers' attitudes regarding use of different strategies and methods that they applied in different phases at PHE classes were examined using a Likert-type scale. The scale was composed of nine different items related to use of movement games at PHE classes; implementation of traditional movement games, music and ICT as well as use of different forms of demonstration within the PHE teaching process. Each item had four different categories – never, sometimes, often, and always. The validation of the scale is done and it is presented in another study which is in process of publication. The obtained results were analyzed using frequencies (f) and percentages (%). For better understanding, all results are presented graphically.

Results

The first three items of the questionnaire refer to the use of movement games in different phases of PHE classes in the fundamental stage of primary education (Figure 1). According to the purposes in each part, movement games can and should be used in all parts of PHE classes except the preparational part. The results presented in Graphics 1 support these. Namely, nearly half of classroom teachers confirmed that they always use movement games in the introduction part (52%), always use them in the preparation part (45%) and always in the ending part (50%). Movement games are often used in the introduction part by 40% of the teachers, 49% of teachers used them often in the main part and 43% used them often in the final part of PHE classes.

Traditional movement games are often implemented in PHE classes. Particularly 44% use these games often and 33% always use these games (Figure 2). If we evaluate these answers on a scale as positive or negative attitude, it can be concluded that nearly 80% of the teachers use traditional movement games whenever is possible.

Music and technology are also implemented in the PHE teaching process. When it comes to use of music at PHE classes, 37% of teachers sometimes use them, while 34% often use music during PE (Figure 3). Use of technology is one of the issues that are more often discussed among PE specialists. It can be applied in many different manners, aiming to achieve different goals during different phases of the class. Teachers included in our study declare that they often use technology at PHE classes (39%) and nearly the same number of teachers have completely opposite opinion and practice: 17% use tools always when possible 16% never use technology while teaching PHE (Figure 4). More than half of interviewed teachers use classroom-based active breaks with movements at another subject, 39% do it often, while 24% do it always when possible. Only 4% of teachers don't have the practice to implement PHE movements as a form for active break (Figure 5).

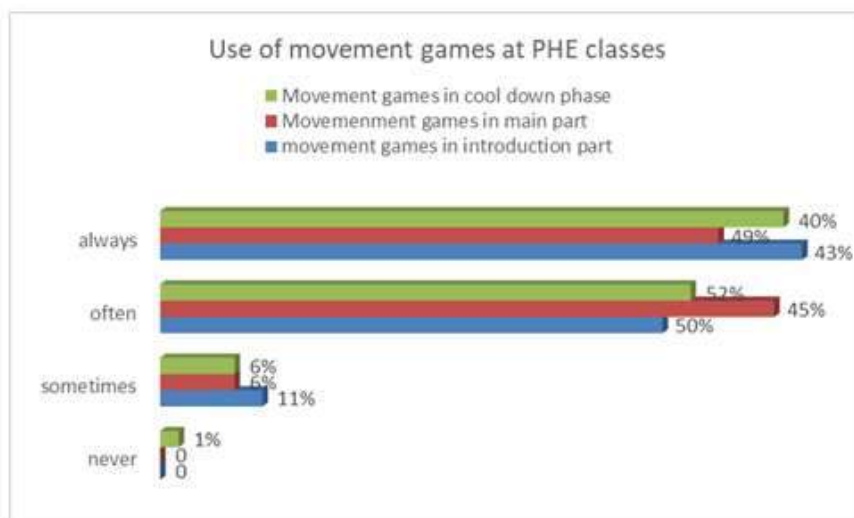


Figure 1. Use of movement games in different phases (parts) of PHE classes

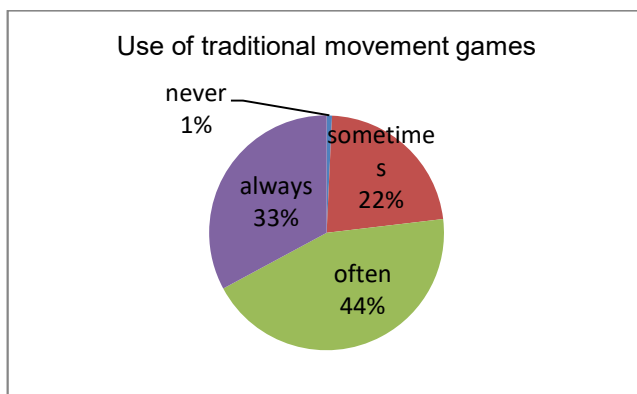


Figure 2: Traditional movement games

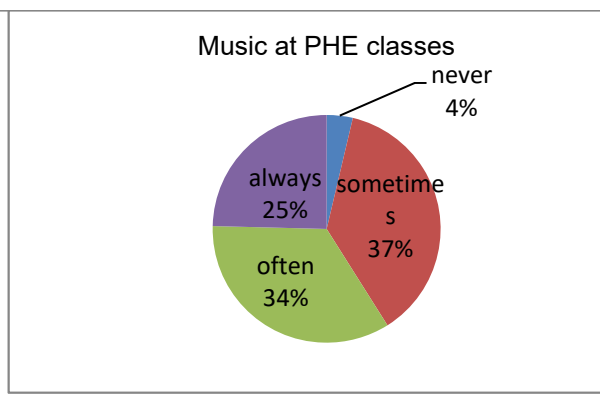


Figure 3: Music at PHE classes

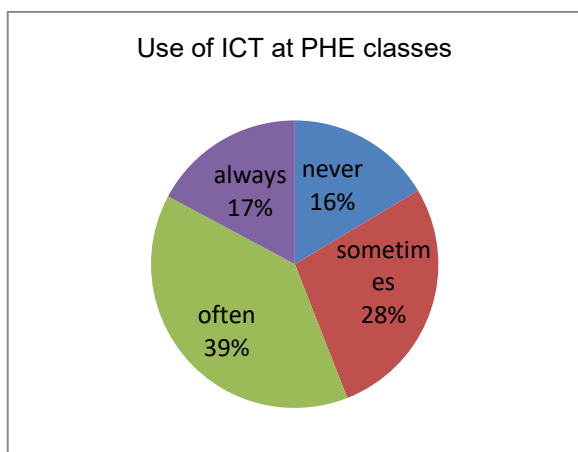


Figure 4: Support of ICT in demonstration

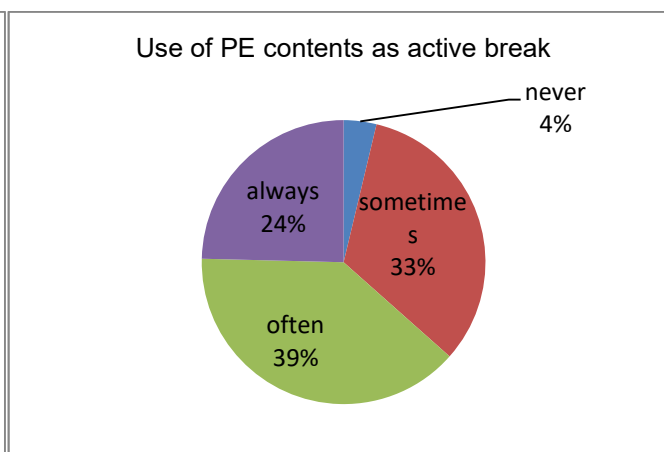


Figure 5: PHE contents in used as active break

The issue of creating a visual image of the movement that should be learned is one of the basic principles when teaching PHE contents. In this regard, the method of demonstration is the first and most frequent applied method of work. Sometime, the demonstration could be done by the students. Asked about this practice, 49% of teacher declare that they always invite students to demonstrate movements during warm up, 39% do this on frequent bases. Regraded same issue in main part, 35% of teachers always invite students to demonstrate movements in main part, 40% do it often and 25% do it sometimes (Figure 6).

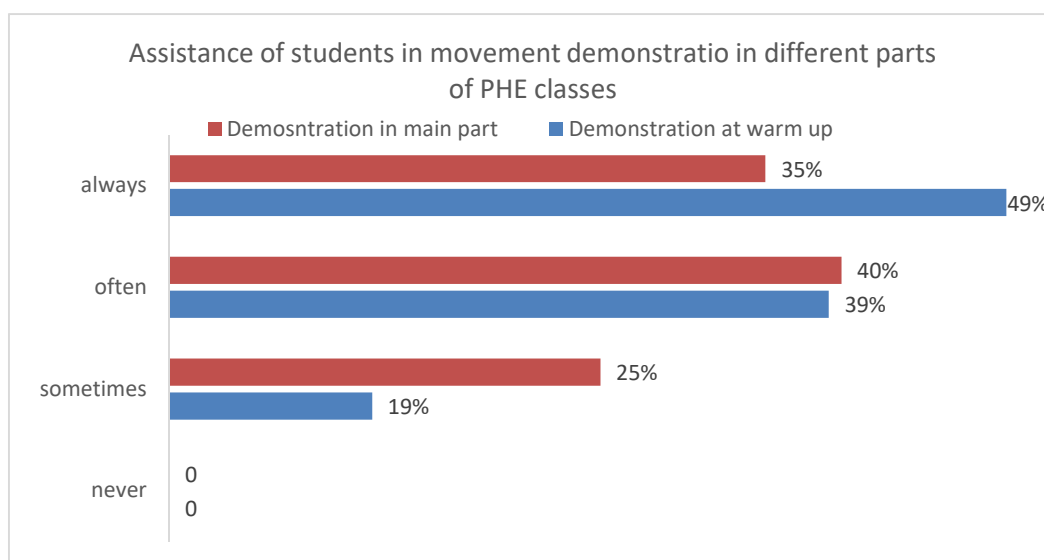


Figure 6: Engage of students in demonstration at PHE classes

Discussion

According the presented results, the first general impression and conclusion is that teaching process can be done in many different ways that goes far beyond the traditional forms of teaching. Each different strategy has different impact on different goal that should be achieved during PHE classes. These means that strategies like use of movement games in different phases of PHE class, implementation of music, use of ICT in different manners and with different goals, implementing contents from PE curriculum in classes from other subjects as well as many other strategies are not just familiar for classroom teachers but are also wildly used for different purposes. In this part, we will discuss and emphasize those effects.

Movement games are one of the most applied strategies when teaching PHE in primary education. According results obtained in our study, significant number of classroom teachers (40% - 49%) always use movement games in introduction phase, main phase and cool- down phase (final part) at PHE classes. A bit higher percent of interviewed teacher (45%– 52%) often use them in different parts at PHE classes. These means than more than 90% of the classroom teachers are applying movement games as strategy during PHE classes aware of their benefits and effect that they have for learning process, movements and motor behavior and overall development. This result is expected considering the effects that can be achieved during movement games. Namely, movement games as form of games and physical activity integrates fundamental movements (walking, running, jumping, catching, throwing etc) improving children movement skills and motor abilities (Peric, 2003). They dominantly have effects on children motor development but they also improve other segments of child development, helping educators to identify children's needs and interests; recognize and improve children movement potentials and also use the movement games as important platform for learning and overall child development (Popeska, 2018). Using movement games at PHE classes, we can work not only to improve children's` motor abilities and behavior but also to activate their physical, intellectual, emotional and social potentials and have positive impact of building of children's character and overall development (Popeska, 2018). Furthermore, movement games are not just bare form of movement. They are also fun and interesting for children. They are important for children emotional, social and moral development. Children freely express their emotions during movement games; they are free of any constrains that might occur during other classes. They are free to be what they are, express joy, happiness, anger and any other emotions that can be achieved during the games. This is manifested as emotional overload during PHE classes. During movement games, children spontaneously express their emotions and are educated how to react on different emotions on acceptable way (Cokorilo, 2007; Mitevski, Popeska & Mitevska – Petrusheva, 2013). Movement games, actively involve all children. Many times, they are the reason for children to include in common activities in the group and therefore are important element for socialization (Bjelica & Krivokapic, 2011). This is important from the aspect of effects achieved at PHE classes. While learning new movements, when working in different groups, practicing different polygons etc, we cannot ensure simultaneous activity of all children. Exactly the passive time during PHE classes and time spend in "waiting for my turn to come" are the reasons for lack of discipline during the class, decrease of motivation, loss of interest for the work during the class. The use of

movement games is an effective strategy to overcome these types of problems at PHE classes.

Movement games are also important platform for holistic learning. Establishing correlational and integrational relations between different subjects in primary education is one of the basic requirements of learning in primary education and foundation for holistic learning. This can be effectively achieved using movement games. Such relations can be established between PHE and mathematics, nature and society, art etc (Popeska & Jovanova – Mitkovska, 2016a; 2016b). We are familiar with movement games that include directions, spatial relations, numbers, mathematical functions, recognition of time, creating unions, recognition and matching the colors, recognition of fruits and vegetables, imitation of different types of animal movements, transportation means etc. They all use some cognitive category that should be connected with some movement and applied in different movement games. This way we have active children that are moving, having fun and during this process use something that they have learned at other subjects not even knowing that they are learning or repeating. And this is the best way for children to learn. Teacher should be educated how to use movement games at PHE classes and what type of game to be selected in order to achieve the goal of particular class and particular part of PHE process. These means that teachers should be able to select the proper game, present it at correct way using available resources, include all children, adapt it to their abilities and according the structure of particular group of children; to be able to guide children properly during the games and knows how to finish it and when to do so. All these should and can be done during the process of initial education of students.

When refereeing to holistic learning and establishing of correlation between subjects, music should be applied as strategy at PHE teaching process. Our results suggest that interviewed teachers not use music on regular bases, but they use it often (34%) and sometimes (37 %). In PHE curriculum, music is implemented as part of particular thematic union that includes learning of folklore and modern dances during PHE classes. Music can be also applied in warm up phase at PHE classes, during main part when learning different folklore and modern dances, as a part of different movement games etc. Many games in cool down phase are based on music, these games are important for development of sense of rhythm during movement but also for development of speed of reaction, coordination, endurance, integration of coordination with reaction and movement. Applied at PHE classes, music can give particular positive impact on development of rhythmic moving expression and development of habit for creative and aesthetic expression, proper motor expression and normal body posture (Milanovic & Tosic, 2012). Music can be also used for motivation during particular movements maintaining the intensity and interest of the students. Study reports that students find physical activity more satisfactory when accompanied with music (Harms & Ryan, 2013) and this information should be used at PHE classes.

Traditional movement games are one particular type of games used in the process of PE. They are games played by our ancestors in the past and played by our children together. Traditional games are part of national culture that incorporates the experience transferred from past to future generations and are part of child folklore. They contain elements of cultural heritage and in some traditional games elements of customs can be recognized (Popeska & Jovanova Mitkovska, 2017 2016c). Traditional movement games help children to internalized certain traditions, moral norms of behavior, improve physical and cognitive abilities, facilitate socialization (Djuric, 2007/1979). The project TAFISA – Recall games of the past (2015), recognize the traditional movement games as manner to overcome the challenges of contemporary leaving by using different traditional movement games from different countries. Our results suggest that classroom teachers are familiar with traditional games and apply them at PHE classes (44% use them often, 33% use them whenever is possible). It's important to incorporate traditional movement games in PHE curriculum in primary education from following reasons: possibility to learn about our tradition, customs, cultural heritage that helps to maintain national identity; possibility for promotion of multiculturalism, internationalism and knowing the cultural values of other ethnic communities; easy to use at all ages; fundamental movements (running, jumping, throwing etc) are contents at traditional movement games. Therefore, they can and should be implemented in PHE curriculum especially in the thematic union Games (Popeska & Jovanova Mitkovska, 2017); they don't need special equipment and material facilities - stones, ropes, woods, bags, rubber bands can be used in traditional games; they can be done everywhere: outdoor, in school yard, in classroom in the park; possibility to include parents and grandparents in teaching process and establish cooperation between schools and family. The importance of traditional games is recognized by UNESCO that recognized them "creation of cultural community based on tradition, reflection of cultural and social identity, their rules and values are transferred orally by imitation and performance" (UNESCO, noted by Bronikowska & Groll, 2015).

Use of technology at PHE classes is one of the issues that are more often discussed among teachers, both generalist teachers and PHE specialists. It can be applied in different manners, at different phases of the class and with different goals. Use of technology as support in process of demonstration and development of visual perception while learning new movements can be one effective strategy at PHE classes. Yet our results suggested on quite different opinions among teachers included in our study. Namely, it is encouraging that nearly 40% of teachers use it often in their working practice and nearly 30% use it sometimes. On the other hand, the same number of teachers have extremely positive and extremely negative opinion regarded this issue (16%). This results are in line with results from our previous studies realized with primary school teachers included in PHE teaching process. Results from that study indicate that teachers in have negative attitude regarding the use of technology in PE and this is more notable for PE specialist compared to generalist teachers (Popeska, Jovanova – Mitkovska & Sivevska, 2017). In the same study, it was determined that generalist teachers consider that technology can motivate children to be more physically active during PHE classes if it is implemented correctly. This statement that technology can motivate children to be more physically active and more engaged during PE classes is also confirmed in many different studies (Podnar & Sunda, 2017). The discussion for technology in PE held in frames of Global Forum GoFPEP 2016 indicate that “technology is greatly influencing pedagogical strategies. It can serve to complement the efforts of the physical education teacher as a tool to improve engagement and also in the assessment process by assisting in the learning, performance and motivational processes. Certainly technology can assist in recording performance and results. There should be a balance between the use of technology for teaching purposes and assessment in physical education classes in school settings” (Edginton, Chin, Demirhan, Asci, Bulca, & Erturan, 2016, p.38). Positive attitude toward technology and its implementation in teaching practice, now in current reality with COVID-19 pandemic is more than needed and we should work on different approaches in order to get it closer to teachers.

The last segment of strategies included in our study is related to use of PE content as active break. This approach is not related with strategies of work at PHE classes but is related with use of PE activities during classes from other subjects. The main goal of this approach is to increase the use physical activity as a form of active break and also to increase the daily level of physical activity of children by using short burst of active break contents. Results suggested that this is approach which is familiar for the teachers considering the fact that more than half of interviewed teachers use classroom based active breaks with movements at another subject, particularly, 39 % do it often, 24% do it always when possible and only 4% never use it. Literature support that active breaks during school increase physical activity in school setting (Reis et al, 2016, 23) have positive effect on brain functions (Schmidt, Benzing & Kamer, 2016 11), maintaining attention (Donnelly et al, 201612) and positive health outcomes (Trudeau & Shephard, 2008) 22). Technology is also successfully implmeneted in classroom based active breaks. Its effects are confirmed in study conducted on sample of Macedonian primary school children implementing HOPSports Brain Breaks®Physical Activity Solutions (Popeska et al, 2018). Our results confirmed positive effect of Brain Break intervention on application childrens learning experience with emphasis on holistic learning, self-awareness, self-efficacy, and self-confidence in developing physical fitness. Learning was enhanced by using video exercises. These results are confirmed in similar studies conducted of students in Litvania (Emeljanovas et al, 2018), Poland (Glapa et al, 2018), Turkey (Uzunoz et al, 2017) and Malesia (Kuan et al, 2019) as well as comparation in other countries including all previously mentioned as well as Romania, Croatia, Serbia, South Africa (Mok et al, 2020). Results evidenced that 3-month intervention of active break in school setting has positive effects on student’s self-efficacy, followed by learning from the videos concerning PA benefits, exercise importance, and enjoyment from engaging in PA. This study provides evidence supporting Brain Breaks® in terms of learning experience, attitudes towards PA, and personal motivation. Such results evidence that active breaks supported by technology are attractive and interesting for children, can be easily applied and therefore are accepted by teachers and have positive effects on students attitudes toward physical activity, positive effects on holistic learning and daily level of physical activity in children, These suggest that they should be recommended for wider use in teacher practice.

Conclusion

Movement games, music, traditional games, technology, different tools that integrate PHE and other subject contents are some of the strategies that teachers use at PHE classes. Such strategies implemented at PHE teaching process could benefit with greater effectiveness, interest and active participation of children. Applied at proper manner each of these strategies can impose benefits on different aspects including motor

learning, improved fitness, socio – emotional aspects, increased interest for participation at PHE classes, increase attention of children during classes, compensation of lack of material and spatial facilities, promotion of cultural values etc. How these strategies will be applied is highly dependent from creativity of teachers, their education for effects of such strategies as well as their creativity. For this reason, teacher should be more open-minded regarded innovations and resources for physical education and be aware that everything around us can be used as resource for learning. This can be achieved by proper education of students – future teachers during their initial education and continuous upgrading and professional development during their working career. At the end, all these must be harmonized with children – their interest, development characteristics and needs. These three elements should be the center of physical education teaching process and starting point in selection of contents, forms of work and teaching strategies.

Conflict of interest – Authors declare no conflict of interest.

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