

TANDEM TEACHING OF PHYSICAL AND SPORTS EDUCATION IN PRIMARY SCHOOL AND ITS IMPACT ON POPULARITY OF THE SUBJECT

Balga Tibor¹, Antala Branislav¹, Cihová Iveta¹, Dovičák Martin²

¹Faculty of Physical Education and Sport, Comenius University, Slovakia

²Faculty of Mathematics, Physics and Informatics, Comenius University, Slovakia

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Abstract: *Tandem teaching is not unknown form of work in primary education, also is not very common practice in Europe and worldwide. In the paper, we present partial results of a broader research focused on the impact of tandem teaching of physical and sports education in primary school and its impact to motor, cognitive and emotional development of pupils. It was a two-group time-concurrent experiment. The research was carried out in the 2021/2022 school year in Slovakia and the group consisted of 418 pupils of the 1st and 2nd year of primary school. A specially designed questionnaire was used to obtain empirical data. The results showed that the popularity of the subject Physical and sports education increased in the set of pupils who completed tandem teaching of the physical and sports education during the observed period (school year 2021/2022). The study is supported by The Scientific Grant Agency of the Ministry of Education, Science, Research and Sport of the Slovak Republic (VEGA) with number 1/0213/23. It is titled "Tandem Teaching of Physical and Sports Education in Primary School and its Impact to Motor, Cognitive and Emotional Development of Pupils".*

Key words : *physical education, tandem teaching, teachers, coaches*

INTRODUCTION

Primary physical education globally tends to be taught by generalist primary classroom teachers without further being trained in this field. Whereas, physical education at the lower secondary schools (5th-9th years) and higher secondary schools (10th-12th-13th years) is taught by certified teachers who hold a degree in PE. The same situation applies to Slovakia.

Pre-service teaching of generalist primary classroom (GPC) teachers and specialist physical and sports education (PSE) teachers for the lower and higher secondary school differs considerably according to the pupils' age and their needs.

Generalist primary classroom teachers obtain their degree in the master's study programme Primary Education Teaching which is part of Pre-school and Elementary Pedagogy field of study. This study programme is provided by pedagogical faculties of various universities in Slovakia.

Specialist PSE teachers for the lower and higher secondary education are trained at specialized faculties focused on the training of experts in sports (e.g. The Faculty of Physical Education and Sports, Comenius University in Bratislava or The Faculty of Sports, Prešov University) or at pedagogical faculties of various universities (e.g. The Faculty of Pedagogy, Constantine the Philosopher University in Nitra).

PSE teachers consider insufficient physical training of pupils transitioning to lower secondary school (2nd stage of primary school in Slovakia) along with the quality of teaching at primary level itself the most serious problems (Balga 2020). The training of generalist classroom teachers is frequently discussed by experts who point at the low level of primary school teachers' competence in ensuring high-quality PSE. (Masarykova and Antala 2020).

Creating good conditions for the training of future teachers, but also those currently in-service is a prerequisite for achieving a higher quality of PSE lessons in schools. One of the possibilities to ensure higher efficiency and quality in PSE lessons at primary school could be tandem teaching.

Tandem teaching

Tandem teaching is a form of management of the teaching process in which the process is conducted simultaneously by two teachers, and which is implemented mainly in the first years of elementary school. In physical and sports education, it can be the class teacher in cooperation with the physical and sports teacher or the class teacher and coach. Both are actively involved in teaching and have clearly divided

competences (Antala et al., 2023).

Tandem teaching is not entirely uncommon in primary education, on the other hand it is not a very common practice in and outside Europe. Analyses in the 2013 Eurydice report showed that generalist primary classroom (GPC) teachers in some European countries, such as Germany, France or Ireland were supported by the presence of sports coaches or counsellors. Cooperation between the GPC and PSE teachers in Slovenia and Macedonia was highly valued by all parties involved and also proved beneficial for pupils. Another best practice is visible in Malta where PE lessons are attended by both, a PE and a GPC teacher. The PE teacher teaches only the subject lesson while remaining lessons are provided by the GPC teacher (Klincarov et al. 2018).

Spilkova et al. (2015) understand tandem teaching as the co-operation of two or more teachers who jointly plan, lead and evaluate a teaching process for the same group of learners at the same time.

Tandem co-operation can be experienced in various forms, between a more experienced and an inexperienced teacher or a student of the Faculty of Pedagogy or the cooperation between the two teachers of the same subject qualification. In primary PSE lessons this could be the cooperation between a GPC and a specialist PSE teacher or a sports coach whose aim is to improve the present state of pupils' health condition and their physical competence. The active involvement of sports coaches in primary PSE lessons could also increase the interest of GPC teachers in PSE lessons. At the same time, sports coaches could inspire GPC teachers and help them better plan their PSE lessons. An example of tandem teaching is the "Coaches in School" program implemented in Slovak primary schools in the 1st and 2nd grades from the 2020/2021 school year.

The aim of the research was to verify the efficacy of tandem teaching in physical and sports education delivered by a generalist primary classroom teacher in cooperation with a sports coach and to determine its influence on the formation of pupils' attitudes towards physical and sports education and on the popularity of the subject.

METHOD

It was a two-group time-concurrent experiment. The experimental factor was tandem teaching through the coaches at school program, in which a total of 110 schools, 550 classes, 91 trainers were involved in the 2021/2022 school year in Slovakia.



Fig. 1 Coaches in school in the 2021/2022 school year in Slovakia

Participants

The research was carried out in the 2021/2022 school year in Slovakia and the group consisted of 418 pupils of the 1st and 2nd year of primary school. The experimental group consisted of 362 pupils who completed tandem teaching through the "Coaches in School" program, and the control group consisted of 56 pupils (without tandem teaching).

Coaches in school

The Coaches in School program involves qualified, trained coaches in the teaching process of physical and sports education at the 1st grade of primary school, who, in cooperation with the teacher, develop pupils' versatile movement literacy. The program is based on the connection of sports that are performed in regular rotation during standard physical and sports education classes. The program, made up of varied movement activities from various sports, creates a relationship with movement activity and the student acquires basic movement habits.

The main goals of the programme are:

- *Building a relationship with movement and acquiring basic movement habits*
- *developing pupils versatile movement literacy*
- *Improving the quality and attractiveness of PSE lessons through an experiential teaching method*
- *Capturing interest in sports among children in the 1st grade of primary school.*
- *Enrichment and inspiration of teachers.*
- *A positive impact on the current state of health of children and thus a reduction of the financial burden on their health care.*

A coach and a teacher create a tandem that brings pupils a better physical and sports education class. Coaches do not replace the teacher, on the contrary, they help with the teaching of physical and sports education lessons, try to inspire the teacher.

An important principle of the program is that the child is not pressured into a specific sport, on the contrary, we want the child to gradually choose the sport he likes the most. In physical and sports education classes, the goal is to get all children moving in a playful way and to give space and the possibility of realization even to the less skilled ones. Emphasis is placed on cooperation with teachers and their active involvement in the process itself (Dovičák and Koblunický 2022).

The program provides regular internal training, which is the key to maintaining quality and enthusiasm in working with children. The entire program is in cooperation with experts from the academic community, trainers, psychologists, and the founders of the Czech program Coaches in School (Macháček et al. 2021). The program "Coaches in School" is under the auspices of the Slovak government's representative for youth and sports, with the support of the Ministry of Education, Science, Research and Sport of the Slovak Republic. In the 2022/2023 school year in Slovakia, 192 schools, 950 classes, 22,000 children, and 150 trained coaches are involved in the program.

Instruments and procedure

We used the specially designed questionnaire to obtain the empirical data. We collected data at the beginning of the school year - input and at the end of the school year - output. The questions in the questionnaire were adopted from various questionnaires verified by the studies in the past, then it was adapted by adding relevant questions and modified in order to achieve the objective and tasks. Although the total number of items in the questionnaire was 32 items (both closed and open), we selected only some of them for this study. The questionnaire results were evaluated at the level of percentage analysis and correlation analysis and the Chi-Square test was used to find a link between some indicators. We only bring some results from our research.

RESULTS

This study is an excerpt of broader research focusing on findings impact of tandem teaching of physical and sports education in primary school to motor, cognitive and emotional development of pupils.

The popularity of the subject Physical and sports education increased during the observed period (school year 2021/2022) among the group of pupils enrolled in the Coaches at school project. At the beginning of the school year, 35.6% of pupils said that their favourite subject at school is physical and sports education. At the end of the school year, it rose to 37.3% (i.e. every third child has the most popular subject of PSE).

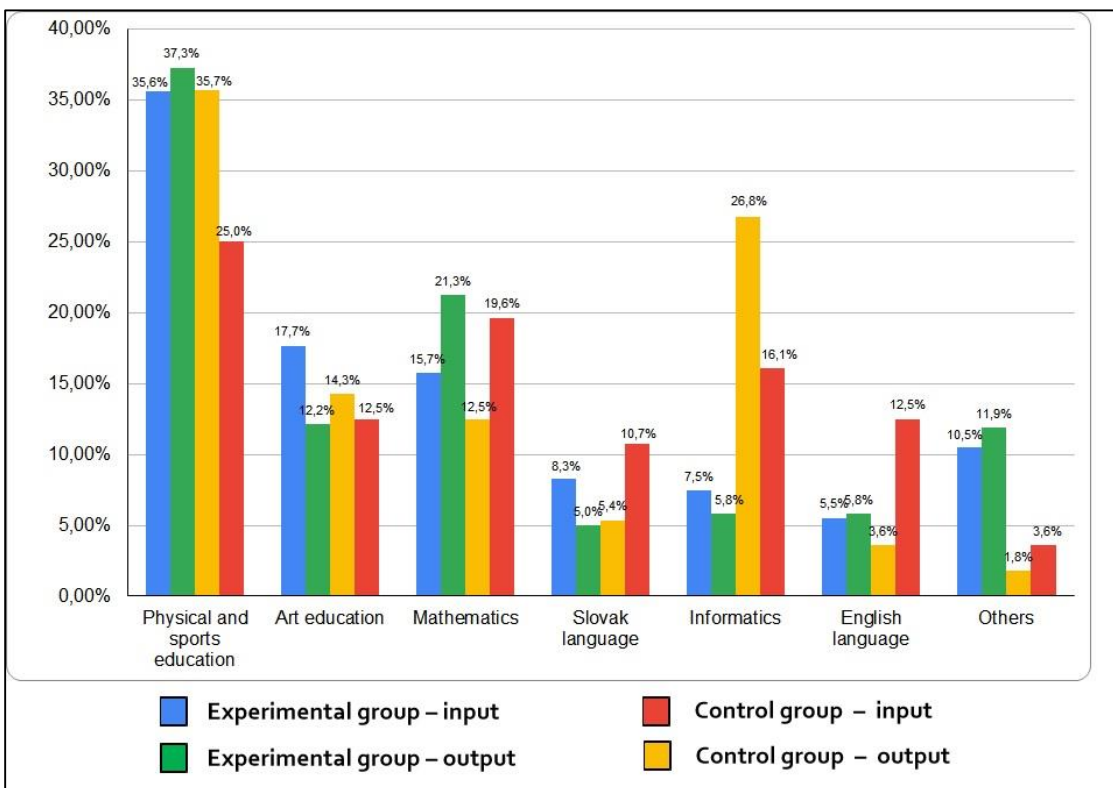


Fig. 2 The most popular subject at school

In the control group - the set of pupils who did not have tandem teaching and a coach in the lessons, at the beginning of the school year the popularity of the subject PE was almost the same as in the experimental group 35.7% of children said that their most popular subject at school is physical education. But what is alarming is that in the end of the school year it dropped to 25.00%. Only for every fourth child is physical and sports education the most popular subject.

We also encountered the same trend with the question, "How many times a week would you like to have a lesson in physical and sports education?"

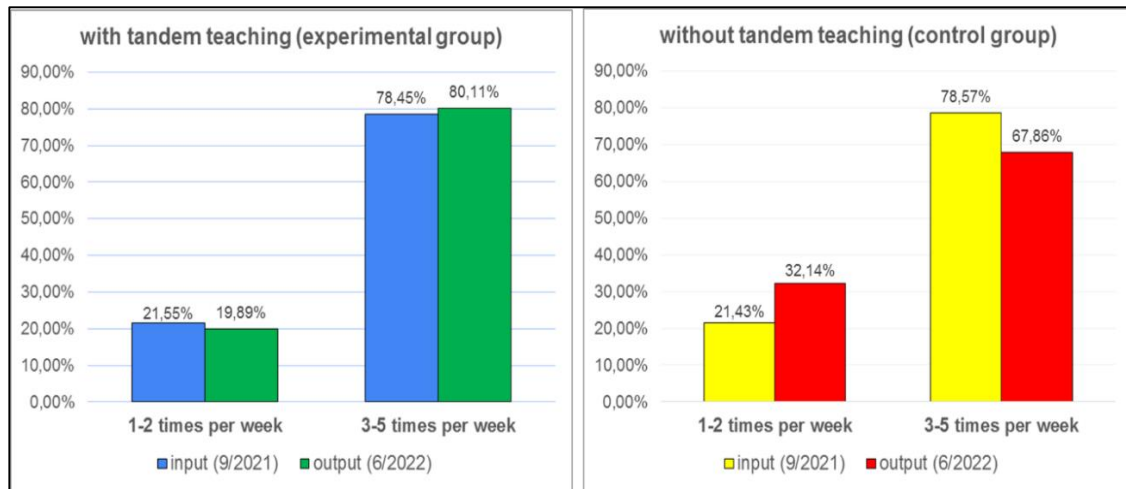


Fig. 3 How many times a week would you like to have a lesson in PES class?

While at the beginning of the school year the answers of children in the experimental and control groups were almost identical, at the end of the school year up to 80.11% of pupils from the experimental group want to have physical and sports education 3 to 5 times per week and only 19.89% need to have physical and sports education 1 to 2 times per week (fig. 3).

In the Control group, however, more than 10% of pupils changed their minds and said that they only want to have PSE 1-2 times a week (32.14%). But despite this, even in the control group at the end of the school year, up to 67.86% of children want to have PE 3 to 5 times per week.

Another interesting finding is that in experimental group at the end of the school year, up to 83.15% of children answered that they always like and trust their teacher or trainer, and in control group it was only 64.29%.

Based on other answers, we can conclude that in experimental group at the end of the school year, up to 91.99% of children always or often looks forward to the next physical and sport class and these classes are fun.

At the end of the school year, experimental group children always answered or often:

- we play interesting games in PES classes - 83.15%
- in PES classes we do exercises that I enjoy - 82.32%
- in PES classes we compete to see who is the best - 45.86%

DISCUSSION

The study evaluated the effect of two different approaches in physical and sports education for popularity of the subject in the 2021/2022 school year of the 1st and 2nd year of primary school pupils. Based on the obtained results, it is evident that the tandem teaching classes have contributed more to the popularity of the subject physical and sports education.

The stated progress of the experimental group is in accordance with the results of the pilot verification from the 2020/2021 school year from which it also follows that 72% of teachers are actively involved in the lessons in the majority of physical and sports education lessons, they are involved in the teaching in every lesson 14% and only rarely is 14% involved. Up to 70% of teachers report an improvement in their children's physical literacy since their participation in the Coaches in School program, and the children expressed the opinion in the majority (92%) that these classes are fun and they look forward to the next class (Dovičák and Kobulnický 2022).

Similar research (Klincarov et al. 2018) analyzed the possibility to influence the effectiveness of physical education teaching process by implementing tandem teaching of generalist teachers and physical education specialist at physical education classes. The research was realized on a sample of 118 teachers, 83 generalist teachers and 35 physical education specialist from 15 primary schools in Republic of

Macedonia. The results suggested that both group of teachers supports the idea of tandem teaching but also that additional workshop, seminars and other forms of education are required.

Implementation of tandem teaching in physical education in the elementary stage of primary education was also one of the biggest reforms in PE in North Macedonia in the last few decades (Popesca, 2022).

According to the initial knowledge, there are positive effects given by the tandem teaching of physical and health education in primary schools, especially when viewed from the aspect of the class teacher (Pop-arsova and Anastasovska, 2022).

Also the results of the research Aleksovskaja et al. (2022) indicate that the innovative classes (realized by the class teacher and professor of physical education) are much better planned, organized, realized and dosed, compared to the traditional classes realized only by the class teacher.

CONCLUSION

We can generally conclude that pupils who were in the program and had tandem teaching do not have a declining character compared to the control group where the coach did not work. Currently, new ways to improve the teaching of physical and sports education in primary education are being sought. Creating good conditions for the training of future teachers, but also those currently in-service is a prerequisite for achieving a higher quality of physical and sports education lessons in schools. One of the possibilities to ensure higher efficiency and quality in physical and sports education lessons at primary school could be tandem teaching.

In our opinion, tandem teaching and the involvement of sports coaches or specialist physical and sports education teachers in the teaching process of primary physical and sports education lessons would eliminate several problems in the quality physical and sports education lessons teaching and ensure greater efficiency of physical and sports education lessons which would reflect in the motor, cognitive and affective development of pupils.

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TANDEM NASTAVA FIZIČKOG I SPORTSKOG VASPITANJA U OSNOVNOJ ŠKOLI I NJEN UTICAJ NA POPULARNOST PREDMETA

Balga Tibor, Antala Branislav, Cihová Iveta, Dovičák Martin

Sažetak: Tandem nastava nije nepoznat oblik rada u osnovnom obrazovanju, takođe nije uobičajena praksa u Evropi i svetu. U radu predstavljamo delimične rezultate šireg istraživanja usmerenog na uticaj tandemske nastave fizičkog i sportskog vaspitanja u osnovnoj školi i njen uticaj na motorički, kognitivni i emocionalni razvoj učenika. Bio je to dvogrupni vremenski istovremeni eksperiment. Istraživanje je sprovedeno školske 2021/2022. godine u Slovačkoj, a grupu je činilo 418 učenika 1. i 2. godine osnovne škole. Za dobijanje empirijskih podataka korišćen je posebno dizajniran upitnik. Rezultati su pokazali da je popularnost predmeta Fizičko i sportsko vaspitanje porasla u skupu učenika koji su završili tandem nastavu fizičkog i sportskog vaspitanja u posmatranom periodu (školska 2021/2022. godina). Studiju je podržala Agencija za naučne grantove Ministarstva prosvete, nauke, istraživanja i sporta Republike Slovačke (VEGA) sa brojem 1/0213/23. Naziva se „Tandemska nastava fizičkog i sportskog vaspitanja u osnovnoj školi i njen uticaj na motorički, kognitivni i emocionalni razvoj učenika“.

Ključne reči: fizičko vaspitanje, tandemska nastava, nastavnici, treneri