



Do it yourself!

A participative approach to increase participation and engagement of high school students in physical education and sport classes

01.01.2017 - 28.02.2019



Albania



Denmark



Italy



Malta



Romania



Slovakia

The project concept

DIYPES project proposed an innovative approach to physical education (PE) classes in high-schools in 5 partner countries: Albania, Italy, Malta, Romania and Slovakia. Based on the expressed needs and preferences of high-school students, PES teachers were asked to develop, in a three-month intervention, more engaging, participatory and inclusive PES lessons. In practical terms, DIYPES opened a communication channel between PES teachers and students to exchange ideas, understand issues and solve them together. The main project concept is to promote PES among high school students as a contributor to an active lifestyle, by directly involving them and their teachers in the development and employment of this school subject. The project was supported by the University of Southern Denmark in monitoring and evaluation.



3 objectives:



1. PES National Curriculum research:

To identify and describe core educational objectives and development practices of PES classes in the national curriculum of the 5 European country partners in DIYPES.



2. Feasibility & Effectiveness:

To test the feasibility and effectiveness of a 3-month intervention through a participatory approach to PES classes in 3 different settings in each of the 5 countries.



3. Collection of good practices:

To develop a set of scenarios and examples of good practice applicable at European level in regard to models for building innovative, participatory approaches to PES classes.

Main Challenges of PES in Albania

PES National Curriculum

PES National Curriculum in Albania, as the core curriculum in pre-university education, is a new curriculum based on competences, e.g. “creative thinking” and “communication and expression”. These competences relate to the FE subject competences “the student shows his/her skills adapting in different situations of movements and sports” and “the student builds co-operation with team members to achieve the desired results”.

PES is related to other subjects, not only because of the cross-curricular nature of the education system, but also because of the interests of everyone in achieving better education, where students are helped to understand their strength and to apply the acquired knowledge into practice.

In Albania students have 3 PES classes per week and 108 PES classes for a school year, which means PES has the same weight as the other subjects in the pre-university education system.

PES curriculum is developed based on tradition, best national practices and the new best practices applied in the EuroPES nowadays.



The main themes of PES are:

- Education through physical activities - focused mainly on traditional (popular) games and motile activities;
- Sports activities – focused on group games as football, basketball, volleyball and handball;
- Education in health, well-being and community service - is a new component integrated in PES curriculum, focused on physical, mental, emotional and social well-being; how to preserve the body from potential injuries during the development of physical activity; sport and society; drug use and effects, etc.

The ratio between new knowledge and knowledge enhancement (repetitions) hours, referring to the first two themes “Physical Activity Education” and “Sports Activities” is:

- New subject knowledge 30-35% of the total teaching hours;
- Reinforcement of knowledge 65-70% of the hours

PES classes implementation

Based on the result of the project intervention, the effectiveness of PES classes can be achieved when the reform of these factors are considered: the policy, the curriculum, the integration of new component into in PES such as health, well-being and community, the increase of number of classes per week, etc.

Successful PES implementation needs a wide range of teaching resources, including the sport equipment, health education, curriculum guide for teachers, various sports activities, projects, studies, analysis and reports, as well as other textbooks that provide cross-curricular access.

One of the main obstacles to achieve all the objectives of PES is the poor/lack of infrastructure and sport equipment. Another issue that needs attention and very much desired by the students are sport competitions at regional and national level.

Secondary schools participated in the project



Abaz Shehu

📍 Tepelenë



Sali Nivica

📍 Memaliaj



Adem Alushi

📍 Krahës

Intervention description

The students' needs and preferences were assessed through focus group meetings which identified their preference for group activities such as traditional sports, volleyball, football and other modern sports such as martial arts. The intervention was designed based on the expressed needs and preferences of the students, consulting their PES teachers.

The interventions consisted the implementation of the circuit/station methodology in group sports such as football, basketball, handball and volleyball. The PES teachers applied the station method in group sports. For example, students were organized in small groups (4-5 students each group) performing simultaneously different exercises in diverse stations.

The intervention was carefully planned to ensure the effective organization of PES classes according to the curriculum and the lesson structures prepared by PES teachers.

Based on the infrastructure and equipment evaluation of each of the settings and requirements of intervention methodology, sport equipment was purchased as part of the project including balls for volleyball, basketball, football, handball, pyramids and marker clothes.

Results

The DIYPES intervention results were very useful in many aspects including the increased participation and engagement of students in PES classes, the increased awareness of the importance of physical activity; the development of social values as intensive communication and working in group, etc.

Given the flexibility of the PES curriculum in Albania, the teachers had the opportunity to apply new learning methodologies through the identification of students' preferences and needs to achieve the objective of PE, increasing the participation and engagement of the students in PES classes.

Quotes:

"PES national curriculum is flexible because the teacher can choose the teaching methodology to archive the objective; is flexible on the implementation taking into account the differences of sport infrastructure and equipment, and differences based on gender, disabilities, minorities, etc." – PES stakeholder

"Students needs to be guided by the teacher, only in this way they can have preferences on new sports" - PES teacher

"The weight (importance) of PES subject/filed is undervalued, compared to the other subjects, considering the incomplete implementation due to the lack of infrastructure and sport equipment" - PES teacher

"Many years ago profiled sport classes were implemented in the educational system, but not any more today. I think it would be an added value to consider the impact they had on the engagement of students in PES classes" - PES teacher

"We are satisfied with the PES curriculum. However it is important to have a good infrastructure and sport equipment for the proper implementation" - student

"We would like to have more competitions between schools on different sports because we feel more motivated" – student

"In spite of the lack of infrastructure and sport equipment we are motivated by our PES teachers to participate in PES classes" - student

"People who do physical activity are healthier, more active and sociable, and happier" – student



Good practices

- It is important to highlight the leadership role of students during PES classes. The students who have better performances can support the teacher to lead the lesson. In this way the students' responsibility to participate, engage and respect their PES teachers and friends is increased.
- "3 subjects in 6 hours" is the new initiative implemented in Albania in pre-university education. It consists the development of PES classes in 90 minutes for two consecutive classes by 45 minutes.
- The implementation of research projects as home work done by the students on PES classes, especially on the third theme of health, well-being and community.
- The organization of the Olympic week has become a tradition for each of the settings, which has a great impact on the participation and engagement of the students. The Olympic week consists of the organization of athletic activities, competitive and non-competitive games, popular and traditional games, artistic-cultural activities, team games and championships between classes and schools.
- The two schools in the urban and peri-urban areas are community center schools. They are open after school hours, thus can develop sport activities as an opportunity to practice their favorite sports with the involvement/ support of the community.



Recommendations for policy and practice

The improvement of sport infrastructures and equipment at schools would increase the participation and engagement of the students into PES lessons and sport classes.

Sport school federations should perform better the duties defined on the law as a requirement of the students to motivate them and to be more participative and engaged. The law no. 79 / 2017 "On Sport" art. 6 specifies that "School Sport Federation has the obligation to organize, direct, control and monitor sports activities with students of all pre-university age groups at regional and national level, in all sports disciplines; to organize the school championship in all sports disciplines and to announce the national school sample; organize representative teams in international sporting activities."

The process of anthropometric measurements (weight, length, perimeter of the chest in calmness and breathing, etc.) of the students, as an obligation of PES curriculum, should be developed to be obligatory and accurate. Once these measurements are developed, the right methodologies for the students' involvement and an efficient use of physical capacity of the student in PES classes in different sports can be achieved.

The importance of physical activity and implementation of sport activities on the framework of the programme "schools as community centers" should be further promoted.

PES subject should be developed in both optional and school-based curriculums.

The introduction of "profiled sport classes" in higher education as an added value on student's engagement during and after PES classes can be created.



Italy project partner



Consiglio Nazionale
delle Ricerche

The Institute for Research on Population and Social Policies of the National Research Council of Italy (CNR-IRPPS)

IRPPS is an interdisciplinary research institute of CNR that conducts studies on social policies and welfare systems, on education and education policies, on the relations between science and society, on the creation/access/dissemination of knowledge and information technology, on demographic and migration issues, on Responsible Research and Innovation and participatory models.

Main Challenges of PES in Italy

PES National Curriculum

The National Curriculum is appreciated by PES teachers as a guideline to conduct their lessons, giving value not only to the physical development of the students, but also to their personal and social development. However, according to the interviews conducted, the curriculum can result as too general, leaving to the teachers the whole responsibility of how to implement the planned educational objectives and learning outcomes by means of specific activities and initiatives and how to evaluate their achievement by the students. This can be related to the high degree of school autonomy in Italy. Moreover, time devoted to PES in high schools (2 hours per week) is insufficient to reach all the objectives.



Low priorities for PES

According to the interviews conducted, funds allocated for PES equipment and facilities are insufficient, in some cases the spaces used are not adequate, being risky or lacking. Moreover, in some contexts physical education is still under-estimated/low considered, although since 2009 it has the same legal status as the other subjects in terms of weight in the overall assessment of the student.

The high number of students per class makes it difficult to implement differentiated pathways when faced with specific individual situations, which may contrast with the PES curriculum aim of including students coming from weaker and disadvantaged groups.



Participating High-Schools in Italy:



Domizia Lucilla high school

📍 Rome



Cavour high school

📍 Rome



Orazio high school

📍 Rome

Intervention description

9 class-specific interventions were designed to address the different needs of the students in each class participating in the project and their teachers' capability to implement these changes. These included the introduction of different sports and innovative activities, the organization of the available school spaces and times as functionally as possible to facilitate and support PES and the increase of responsibilities for the students through the performance of activities simultaneously in small groups. Some proposals were particular such as the introduction of music during the lessons, while other were more "traditional" such as changing warm-up routines, introducing specific sport exercises, having more competitions between classes, or increasing awareness of the evaluation method.

In addition, new sports equipment was purchased as an incentive for the schools participating (i.e. gym equipment, a basketball hoop, a table football).

Preliminary results in Italy

Each teacher tested some of the proposals of the students in 3 classes from March to June 2018, compatibly with their already scheduled activities and evaluation needs, and at the beginning of the following school year considered students' suggestions while developing their annual program. The students appreciated the new equipment provided by DIYPES, which made possible to perform new activities, also activating unused school spaces, and became available for all the other school classes.

Quotes by the teachers involved in DIYPES

"The added value here is that DIYPES experimentation let me reflect: about evaluation, relationship with students, national curriculum, and then the final exchange of views considering different realities"

"I would bet on giving the students an organizational and creative role. That is what they will need most in life"

"For sure in those self-organized lessons the students felt responsible of their role, everyone was involved. They felt important, it is motivating to assign them a role"

"Involving the students and giving them the chance of expressing themselves, their ideas, is very positive"

"The students had a positive attitude towards innovations"

"I could exchange views with people from other realities, with reference to both the other schools of Rome involved in DIYPES and the people from several European Countries met during Malta meeting"

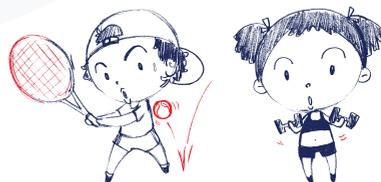
"I have already achieved an immediate effect: learning to listen students' suggestions and needs"

"I will take into account students' ideas in the educational plan of all my classes"

"Among the limits of a collaborative approach to PES classes (I see) the fear towards change and innovation by many teachers and school institutions, school directors, class councils"

"Among the positive aspects of a collaborative approach to PES classes (I see) making the students participate in a more active way, while they are used to deal with things imposed top-down"

"Students feel more involved and are more interested, becoming active part of their educational path"



Good practices in Italy

- Interdisciplinary orienteering projects in collaboration between PES and other subjects (e.g. natural and environmental sciences, history or art history, geography, drawing, computer science).
- Programs coordinated with other teachers (e.g. biology teachers), dealing with the considered topic from different perspectives, and developing interdisciplinary paths.
- Competitions of integrated sports involving several schools, with teams composed by differently abled and normally abled students from different classes.
- Varying the activities performed during PES classes.
- Activities that allow students to go out of the school environment, widening their perspectives.
- School tournaments, for instance Olympics within the school concerning several subjects.
- Health-promoting projects, e.g. related to addictions, with classes held by external experts.
- International initiatives, like the Miguel Race, a cross-country race dedicated to a desaparecido.

Recommendations for policy and practice

- It is key for schools to take actions in shaping active habits for children, also stressing the topic of nutrition and healthy lifestyle.
- Linking PES to other subjects in order to give value to its interdisciplinary vocation.
- Strategies to engage actors other than students in PES should be considered at the national curriculum level.
- The results gained from PES educational good practices should be more highlighted and shared.
- Listening to the students needs and having a positive attitude to changing lessons, adjusting them to class groups, in order to increase the enjoyment and engagement of the students.
- The improvement of PES infrastructures and equipment at schools in order to increase the enjoyment and engagement of the students.
- The gap between North and South should be considered at policy level in Italy.

Malta project partner

Foundation for the Promotion of Social Inclusion Malta (FOPSIM), founded in 2006, aims to achieve concrete progress for marginalized groups or sections within Maltese society. FOPSIM's main mission is to promote and sustain employment, social solidarity, integration and migration, youth and active female participation in all aspects to achieve tangible advancement in the transition towards a more equitable society.



Main Challenges of PES in Malta

PES National Curriculum

The National Curriculum is helpful and is used as a guideline for PES teachers to organize their lessons. However, it does not contain stereotypical descriptions of individuals or groups on the basis of personal characteristics such as ethnicity, gender, religion, culture and student abilities.



Low priorities for PES

According to interviews conducted, even though physical education teachers are gradually gaining more positive response from their students, physical education classes are still on a low priority ranking compared to the traditional subjects. This is evidenced by the number of lessons allocated per week, limited equipment and long-term investment in facilities.



Cultural and family mindset

Parents' involvement is still limited on which improvement would help students, along with their parents, to have a deeper understanding of the importance of sports and physical education.

Participating High-Schools in Malta:



**Saint Theresa College
Secondary School**

📍 *Mriehel*



**St Edward's
College**

📍 *Birgu*



**St Thomas More
Middle and Secondary
School**

📍 *Zejtun*

Intervention description

The intervention was designed to address the different needs of the students in each school participating in the project and their teachers' capability to implement these changes. Different methodologies were implemented by the teachers in delivering the lessons, such as giving house points for students with active participation in each PES lesson. The intervention also focused on making the lessons more fun and enjoyable to the students through innovative twists and diverse games. More attention to individual ability and team work activities were also the highlights of the interventions. In addition, new sports equipment was purchased as an incentive for the schools participating, also benefited the students during the intervention process (i.e. volleyball net, bibs and gym equipment).



Results in Malta

The DIYPES implementation resulted in a major involvement and enthusiasm of the students in participating in PES lessons. This new energy has increased the efficacy of PES lessons and enhanced the importance of PES as a subject. The identification of good practices will be instrumental for the future shaping of PES teaching methodologies and requirements to make PES more enjoyable and efficient to high school students.

Quotes:



Good practices in Malta

- The creation of school councils which include class representatives who listen to their colleagues and pass on suggestions to the council itself. This is a way to empower students and give them a leadership role.
- Different sport activities during breaks involve many students to try different sports and compete in tournaments.
- Sports tournaments applied all year round guarantees the chance for any student interested to participate.
- Physical activities after school hours give students the opportunity to practice their favorite sports.



Recommendations for policy and practice



- It is key for schools to take actions in shaping active habits for children.
- Educators are encouraged to collaborate with parents and the wider community to ensure meaningful and long-lasting experiences for young people.
- The promotion of out-of-school exercise and extracurricular activities and the support of lifelong physical activities and healthy eating lay the vital foundation for young people's development.
- The improvement of PES infrastructures and equipment at schools would increase the enjoyment and engagement of the students.

The main challenges in PES classes development in Romanian high-schools

I. The National Curriculum

Document analysis and the interviews with the PES teachers and methodologists-professionals revealed the following main issues regarding the PES curriculum in high-schools:

1. A limited number of classes – 1 class/week – according to the high-school framework plan.
2. The lack of connection between the participation in PES classes and the development of a healthy lifestyle, the opportunity to socialize through sport/physical activity or the practice of leisure time physical activities.
3. The classic style recommended for the PES classes' structure, necessary to be presented/implemented during each evaluation/inspection, viewed by students as old-fashioned/unattractive.

II. The infrastructure and the equipment

The lack of a sports hall or the simultaneous use of the existing one by students from different grades, insufficient or worn out equipment.

III. The unfriendly institutional and social culture regarding PES

The PES class viewed as irrelevant/unimportant compared to other subjects, the inadequate scheduling of the PES classes, the occasional use of the PES class for the delivery of other subjects, the pressure on the PES teachers to evaluate the students with equal or higher grades than the ones given the other subjects, the lack of parents' and teachers' support in stimulating students to attend and to be engaged in the PES classes.

IV. The system of medical exemption

The lack of means and procedure to control the medical exemptions.

V. The system and criteria for evaluation

Non-stimulating and rigid, easy to accomplish for a (small) part of students, very difficult or impossible for the others – the majority.

VI. Motor skills development

The poor development of the basic motor skills limits students' abilities to be active and to enjoy the proposed activities for the PES classes.

Participating High-schools:



“Mihai Eminescu”
Theoretical High-School

📍 *Cluj-Napoca*
central urban



“Eugen Pora”
Theoretical High-School

📍 *Cluj-Napoca*
neighborhood urban



“Gelu Voievod”
Theoretical High-School

📍 *Gilău*
periurban/rural

Intervention Description

The majority of the students (from all three high-schools) suggested implementing similar changes. Thus, there were organized new/group activities/sports, class-based competitions and more support was offered by the PES teachers in training students for the evaluation tests. The research team collected, analyzed, synthesized and presented 9 different intervention plans (one for each class) to be used by the PES teachers, focusing on the students' suggestions, mainly introducing dynamic games as warm-up activities, learning new technical elements through contests and introducing optional activities (body building and badminton). Good practices have been identified and collected throughout the entire timeframe of intervention implementation. Different equipments were bought, from electronic darts, gymnastics mattresses and home gyms stations, to badminton rackets, fitness balls, weights, pull-up bars, football balls, ping-pong balls, poles, ball pumps, gymnastics hoops, jumping ropes and TRX.



DIYPES Project results in Romania

I. Preliminary analysis of the pre-post intervention questionnaires addressed to students revealed a series of positive results following the intervention implementation, respectively:

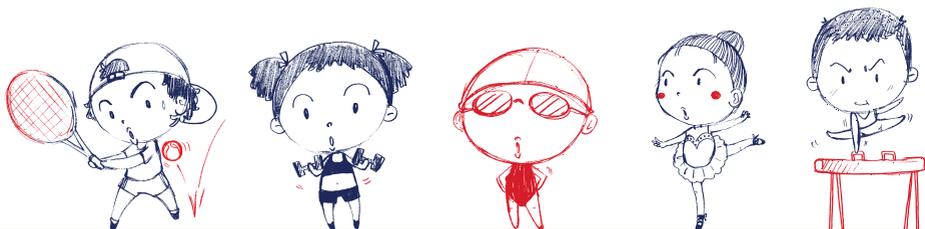
1. More than 80% of the respondents considered the classes during the intervention to be much more attractive or more attractive than the usual classes.
2. Almost 70% of respondents declared themselves to be much more active or more active during intervention classes compared to usual classes.
3. Half of the respondents of the above question (no. 2) explained that their increased involvement was driven by the new proposed activities.

II. PES teachers' interviews highlighted the following aspects:

1. The proposed lesson plans have been implemented in proportion of 85-90%.
2. The bought equipment was very useful in implementing the intervention and is considered to be useful also in the future.
3. The majority of the students have been opened to the changes proposed and showed an interest in the idea of being included in the development and delivery of the PES classes.

III. The structured observation of the PES classes before and throughout the intervention highlighted the following aspects:

1. The dynamic games used in the warm-up part stimulate the involvement of students with different skills during the entire class duration.
2. The use of competitions within the process of learning a new technical element facilitates and optimizes the learning process.
3. Adapting the activities within the PES class to students' different needs and preferences (e.g. organizing small groups activities) increases the intensity of the PES class.



Good practices

I. Extracted from teachers' interview, regarding the PES curriculum:

1. Adapting the evaluation system to each student/class potential
2. The preparation for and participation in sport competitions at local and national levels.
3. The introduction of new sports, from the optional sports list (e.g. rugby tag).



II. Observed during the within intervention PES classes and reported by PES teachers in the post-intervention interviews:

1. The use of dynamic games during the warm-up part and of competitions within the process of learning new technical elements.
2. Small groups activities for learning new technical elements, strength/resistance training circuits or practicing some of the students' favorite sports.
3. Creating (by the PES teachers of) an atmosphere which encourages the communication, collaboration and the positive mood among the students, as a way of stimulating the participation and involvement of students in the PES class.



Policy and practice recommendations

1. Increasing the number of PES classes in high-school education cycle.
2. Changing the paradigm of developing the PES curriculum from the concept of performance to the one of health enhancing physical activity (HEPA).
3. Stimulating the communication and collaboration between PES teachers and students (through legislative basis and professional training).
4. Adapting/updating the system and the criteria for evaluation .
5. Developing a system and instruments able to control medical exemptions.
6. Stimulating a change in the institutional culture regarding the importance of PES as a school subject.
7. Using games and competitions as basic methods in the delivery of PES classes; constantly introducing new/innovative activities and sports.
8. Involving parents, teachers and other social actors in PES promotion, as part of an active and healthy lifestyle.
9. Stimulating and rewarding PES teachers for organizing extracurricular activities in schools.
10. Developing the infrastructure and purchasing the necessary equipment for the delivery in good conditions of the PES classes (including in the small groups activities system).

Romania project partner (Coordinator)



Cluj School of Public Health

College of Political, Administrative and Communication Sciences
Babeş-Bolyai University, Cluj-Napoca, Romania

Cluj School of Public Health (C-SPH) is an innovative research focused program with full English educational track in public health – BA, MPH, PhD in Cluj, in Romania. This is the only Public Health program taught completely in English in the entire Central and Eastern Europe.

C-SPH also comprises a research center where staff with more than 10 years experience submit and implement research projects funded by national, European and USA-NIH funds.

For more information about us, please access: www.publichealth.ro

Slovakia project partner

Constantine the Philosopher University in Nitra (CPU), (Univerzita Konštantína Filozofa v Nitre, abbrev. UKF in Slovak) has been formed as a modern European general university where its dominant role is played by science, spiritual quality, high professionalism, pedagogical mastery, open and vivid communication within both local and international environment.

Main Challenges of PES in Slovakia

Health oriented aims: improving and maintaining the state of health through regular and adequate physical activity and observing hygienic rules, including psychological hygiene.

Educational objectives: education of pupils with good manners, ability to cooperate with other peers, observing the rules of the game (fair-play), fighting against doping in sport, preventing from drug abuse including smoking and drinking alcohol and other supporting substances.

Training objectives: They are divided into 3 main areas as follows

Personal development:

- promoting personal growth at psychological level: PES aims to help students find challenges on their own, being able to face and overcome their own limitations; bringing out their attitudes, inclinations and preferences.
- promoting new lifestyles: making sport a central component in the students' lifestyles and allowing them to perceive it as a habit; promoting healthy lifestyles.

Social development:

knowing how to live and to deal with others; respecting shared and self-established rules; experiencing competition as a way to verify their abilities instead of an aggression towards a rival.

Physical development:

building confidence with their own bodies; developing complex motor activities, appropriate to the personal maturity of each student.



Participating High-Schools in Slovakia



Spojená school

📍 Nitra



Gymnázium Golianova

📍 Nitra



Gymnázium Šurany

📍 Šurany

Intervention description

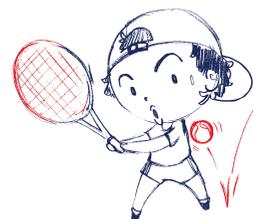
The intervention was implemented in three selected high schools in different areas. The goal was to improve the classical way of understanding PES lessons. Through movement games at the beginning of lessons or using new equipment from the DIYPES project the teachers wanted to involve and encourage the students into PES lessons. The teachers also implemented new untraditional sport games and modified the methodology to motivate the students to do their best. New attitudes of the teachers were prepared according to students answers in the pre-intervention questionnaires. Many students who were not so happy with the classical form of the lessons started to attend and enjoy these new activities and appreciated the innovative methods. Students could bring something new from their own mind and should also cooperate with others and the teachers.



Results in Slovakia

The DIYPES project brought a new way of understanding PES to have more fun and enjoy every minute of their lessons. It does not matter the nationalities or cultural habits as long as the lessons are more active and bringing something new that involves all students. The set of good practices could be used for not only the Ministry of Education in Slovakia but also for all partners' countries to develop their PES lessons for high school students. The changes the teachers have done proved that new innovative methodology and attitudes are really important.

Quotes:



Good practices in Slovakia

1. More focus on the development of all basic abilities at elementary schools of grades 1 and 2.
2. School Sport Portal in every high school (to have more competitions between the classes and grades).
3. The organization of the tourist event in the High Tatra Mountains (Zamkovsky Challet), bike events to discover some unknown parts of Slovakia and the Health protection course.
4. New activities or untraditional games every year, e.g. interval trainings, creation of new sport games and rules of competitions, education organized during courses and co-operation with the regional Olympic Committee and Parents Council.



Recommendations for policy and practice

- Cooperation with local sport clubs and sport organizations: better material and personal provision of competitions.
- National project of life-long education for teachers of Grade 1 at elementary schools focusing on the improvement of PES lessons.
- The establishment of a sport school center in the school, aiming at organizing sports activities. This constitution is autonomously deliberated by schools and is not mandatory.

Schools can freely decide to set up a sport school center and its manager, in collaboration with PES teachers, to draw a didactic-sport project that contains all the initiatives to be offered to students during the school year.

Funding is ensured by using the so-called Pupils Sport Card provided by the state to each pupil for cultural activities (such as arts, music, sport, etc...). The pupil will decide which area he/she is going to follow.

To involve more parents into the process of physical activities and together with them, to promote common sport events and introduce to them active life styles with an everyday moving regimen.



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