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# Foreword

## Editorial

This issue represents a very exciting step in the 'life' of the ICSSPE Bulletin with this new look, newly developed on-line version. The idea behind developing the Bulletin on-line was to make the information more accessible to our member organisations and hopefully their members also. One of the challenges that faces ICSSPE today is getting the information to the grass-roots, ie the members of our member organisations. With the previous printed version of the Bulletin, we were only able to provide each organisation with one copy, however this way we can make the access codes available to all of our organisations members and hopefully increase the distribution of this important information. ICSSPE will also be producing a CD version of the Bulletin for those who do not have access to the internet.

While, the overall look of the Bulletin is different, we have kept with our popular format of the follow-up to the World Summit on PE, a feature section, current issues in research, and reports on meetings and events.

The follow-up to the World Summit on PE, is a collection of papers from the EUPEA symposia held in late 2002, about the important issue of quality in PE. This information is appended with a copy of The Code of Ethics document produced on behalf of EUPEA by Chris Laws. In addition, there is also the recent report from the California Department of Education which found that physically fit kids perform better academically.

The feature of this issue is on Research Methodology in Sport Science and represents a close look at the methodologies currently employed in sport science and the reference material available to further source information.

This edition of the Bulletin also includes some very interesting conference and member organisation reports, book reviews and an informative watching the web section by Gretchen Ghent on Physical Inactivity: Finding Web Documents and Print Sources.

I hope you enjoy this new on-line version and find it assists in your ability to access the information and your enjoyment of reading the articles. If you have any further suggestions on how to make this site more 'user-friendly' or any other suggestions, please do not hesitate to contact me.

With best regards on behalf of the ICSSPE office

**Amanda Smyth**

ICSSPE Publications Manager

## Welcome

Since September 2002, ICSSPE has received the following new membership applications for ratification at the 64th Executive Board Meeting to be held in South Africa in September, 2003.

B157-1

International Health and Fitness Institute  
HONG KONG

D149-2

Idrottshögskolan (University College of PE and Sports)  
SWEDEN

B130-2

Asian Council of Exerciese and Sports Science  
KOREA

C031-1

Association Burundaise pour le Sport et la Culture (ABSC)  
BURUNDI

A045-1

South African Sports Commission  
SOUTH AFRICA

## Editorial

Avec sa nouvelle version en ligne récemment mise en service, le Bulletin du CIEPSS fait peau neuve et amorce une nouvelle étape de sa carrière. Le développement en ligne du Bulletin vise à le rendre plus accessible aux organisations membres du CIEPSS et par conséquent à leurs membres. L'un des objectifs principaux du CIEPSS est en effet de diffuser l'information vers la base, vers les membres des organisations, qui collaborent avec le CIEPSS. Jusqu'à ce jour, nous ne pouvions envoyer qu'un seul exemplaire du Bulletin aux organisations. Avec la version en ligne, il nous suffira de délivrer les codes d'accès au site, pour le rendre accessible à toutes les organisations membres, et accroître ainsi la diffusion de l'information. Le CIEPSS proposera sous peu également une version en CD-Rom du Bulletin, pour tous ceux qui n'ont pas accès à Internet.

Bien que le format du Bulletin ait été modifié, nous avons conservé nos formules à succès, comme le suivi du World Summit on Physical Education, mais aussi nos pages consacrées aux contributions spéciales, aux parutions actuelles dans le domaine de la recherche et les reportages sur les divers événements et rencontres.

Le suivi du World Summit on Physical Education est une collection d'articles inspirée du symposium de l'EUPEA, qui s'est tenu fin 2002 et qui s'est penché sur l'importance de la qualité de l'éducation physique. Ces informations sont accompagnées d'une copie du Code of Ethics, un document élaboré sous la direction de Chris Laws d'EUPEA. A cela, s'ajoute un rapport récent du California Department of Education, qui constate que les enfants en bonne forme physique sont plus performants en classe.

La section spéciale se penche cette fois-ci sur les méthodologies de recherche en science du sport et présente une revue détaillée des méthodologies employées actuellement, ainsi que du matériel de référence pour plus d'informations.

Cette édition du Bulletin comprend également des rapports sur certaines conférences de grand intérêt, des rapports fournis par nos organisations membres, une revue des parutions récentes et une rubrique Watching the web très instructive sur l'inactivité physique, préparée par Gretchen Ghent : vous y trouverez toutes les bonnes adresses d'Internet sur le sujet, ainsi que les parutions.

J'espère que vous apprécierez cette nouvelle version en ligne, qu'elle vous apportera l'aide nécessaire pour accéder à l'information dont vous avez besoin, et que vous en apprécierez la lecture. Toute suggestion pour rendre le site plus agréable à utiliser est bienvenue, ainsi que tout autre conseil. N'hésitez pas à prendre contact avec moi.

Avec mes meilleures salutations au nom du bureau du CIEPSS

**Amanda Smyth**

ICSSPE Directrice des publications

## Dear ICSSPE Family

It seems only just the other day I was wishing you a happy and healthy start to the year 2002, and now it is time to again wish you the best for the new year, 2003. The years seem to be flying by, however when I stop and reminisce on the year 2002, I am grateful to think of the chances I have had to meet and talk with the members and partners of ICSSPE in various locations around the world. One of my highlights from last year, was presiding over the meetings of ICSSPE in Manchester. The Manchester meeting provided many special features, one of these was the first meeting of the Regional Co-ordinators for ICSSPE. With this meeting, we started a process to further strengthen the work of ICSSPE in the different regions of the world. Please find out who the co-ordinator in your area is and get in touch with them if you have any issues or ideas that may assist in spreading the work and message of ICSSPE within the region. I look forward to another great meeting of the boards of ICSSPE in Pretoria, South Africa in September this year and hope that we will again have great attendance by all members and partners.

In January, ICSSPE was represented by Mr Mailliet, Prof. Talbot and myself at the UNESCO Round Table of Ministers responsible for physical education and sport. The focus of the talks 3 important following MINEPS III: PE and sport in the educational environment, protection of young athletes, and the fight against doping. ICSSPE played an important role in this meeting, presenting a keynote address entitled Strengthening physical education and sport in the educational environment and also a position paper on Protecting Young Athletes.

In February, Magglingen Switzerland will host an international conference on Sport and Development. This will be an important event for the further progression of the case for quality physical education as an integral component to the school curriculum. I will be chairing a panel on the role of PE and sport in human development and we have prepared on behalf of ICSSPE a discussion paper for this session. The recommendations from the meeting will be forwarded to the Secretary General of the United Nations by Mr Adolf Ogi, special advisor for peace and development, who endorses and will be attending the meeting.

As always, we are continuing to strengthen our relationships with our important partners, in addition to the many fruitful meetings and discussions with our long-term partners IOC, UNESCO and WHO and FIMS, I recently met with GAISF's representatives when I attended their GAISF Congress and General Assembly in Colorado Springs in November last year. We are hopeful to intensify the links between our two organisations and find common areas of interest where we can co-operate.

As you are aware from reading this issue of the Bulletin, it has undergone a major make-over. We hope that this new on-line version of the bulletin means that more members will be able to access this important information so that we can increase our ability to communicate within the ICSSPE family. Congratulations to the ICSSPE Executive Office on this first successful On-line Bulletin and to Astrid Lange, our Internet and Bulletin developer for your great work.

With best wishes for a successful and enjoyable 2003,

**Gudrun Doll-Tepper**  
President, ICSSPE

## **Cher famille du CIEPSS,**

Il me semble vous avoir souhaité il y a quelques jours à peine une bonne année et une bonne santé pour l'année 2002, et il est déjà l'heure de vous souhaiter tout le meilleur pour l'année 2003. Les années s'enchaînent à grande vitesse, pourtant lorsque je prends le temps de me remémorer l'année 2002, je suis reconnaissante des opportunités qui m'ont été données de rencontrer et de m'entretenir avec les membres et les partenaires du CIEPSS, dans différents lieux à travers le monde. L'un des points culminants de mon année passée, a été de présider les rencontres du CIEPSS à Manchester. Le rendez-vous de Manchester a donné lieu à de nombreuses innovations, dont la première rencontre des coordinateurs régionaux du CIEPSS. Avec ce meeting, nous avons inauguré une démarche qui vise à renforcer le travail du CIEPSS dans différentes régions du monde. Si vous avez des projets ou des idées pour contribuer à diffuser le travail et le message du CIEPSS dans votre région, renseignez-vous sur votre coordinateur régional et mettez-vous en contact avec lui. J'attends avec impatience une autre rencontre importante, celle des instances du CIEPSS à Pretoria en Afrique du Sud, au mois de septembre. J'espère que cette fois encore, membres et partenaires seront nombreux.

Le CIEPSS, représenté par Mr Mailliet, Prof. Talbot et moi-même, était présent en janvier à la Table Ronde de l'UNESCO, qui réunissait les Ministres responsables de l'Education Physique et du Sport. Les discussions étaient centrées sur trois sujets d'importance, tous liés au suivi de MINEPS III : l'éducation physique et le sport dans l'environnement éducatif, la protection des jeunes athlètes et la lutte contre le dopage. Le CIEPSS a joué un rôle important lors de cette rencontre en présentant un discours clé, intitulé *Strengthening physical education and sport in the educational environment*, ainsi qu'une déclaration de principe : *Protecting Young Athletes*.

Magglingen en Suisse, accueille au mois de février une conférence internationale sur le sport et le développement. Cette événement est important pour l'évolution future du dossier de la qualité de l'éducation physique, en tant que partie intégrante du cursus scolaire. J'y présiderai une session sur le rôle de l'éducation physique et du sport dans le développement humain et le CIEPSS a préparé un document de travail pour cette rencontre. Mr Adolf Ogi, conseiller spécial du Secrétaire général des Nations Unies pour le sport au service du développement et de la paix, supervisera et participera à cette rencontre et fera suivre les recommandations finales à Kofi Annan.

Bien entendu, nous travaillons au renforcement de nos relations avec nos partenaires, en plus des rencontres et des discussions productives que nous menons avec nos partenaires de longue date : le CIO, l'UNESCO, l'OMS et la FIMS. J'ai ainsi récemment rencontré des représentants de l'AGFIS à l'occasion de leur congrès et de leur assemblée générale à Colorado Springs, en novembre 2002. Nous souhaitons intensifier les liens qui existent entre nos deux organisations et trouver des lieux et intérêts communs qui nous permettront de coopérer.

Comme vous avez pu le constater en lisant cette édition du Bulletin, il a été l'objet de transformations importantes. Nous espérons que plus de membres auront accès au Bulletin grâce à cette nouvelle version en ligne et qu'ainsi, la communication au sein de la famille du CIEPSS en sera améliorée. Toutes mes félicitations au Bureau du CIEPSS pour ce premier Bulletin en ligne réussi, ainsi qu'à Astrid Lange, responsable du développement du service multimédia et du Bulletin. Avec mes meilleurs vœux de réussite pour l'année 2003,

**Gudrun Doll-Tepfer**  
President, ICSSPE



# World Summit follow-up

## State Study Proves Physically Fit Kids Perform Better Academically

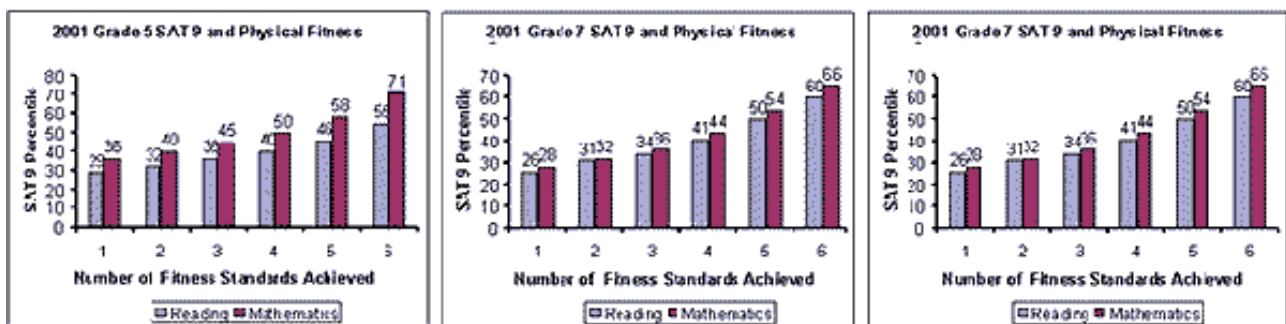
California Department of Education



The results of a recent study conducted by the California Department of Education (CDE) show a distinct relationship between academic achievement and the physical fitness of California's public school students. The study found that students who were "physically fit" performed better at school work, especially mathematics, in all 3 grade levels studied: grades five, seven, and nine.

The newly completed research study individually matched scores from the spring 2001 administration of the Stanford Achievement Test, Ninth Edition (SAT-9), given as part of California's Standardized Testing and Reporting Program, with results of the state-mandated physical fitness test, known as the Fitnessgram, given in 2001 to students in grades five, seven, and nine.

In the study, reading and mathematics scores were matched with fitness scores of 353,000 fifth graders, 322,000 seventh graders, and 279,000 ninth graders. The attached bar graphs for each grade level show a significant relationship between the two types of scores that were matched.



The test that was used, Fitnessgram, uses criterion-referenced standards to evaluate fitness. These standards represent a level of fitness that offers some degree of protection against diseases that result from sedentary living. Achievement of the fitness standards is based upon a test score falling in the Healthy Fitness Zone (HFZ). Each of the six tasks measures a different aspect of fitness, and the HFZ represent minimal levels of satisfactory achievement on the tasks.

### Key findings of the study are:

- Higher achievement was associated with higher levels of fitness at each of the three grade levels measured.
- The relationship between academic achievement and fitness was greater in mathematics than in reading, particularly at higher fitness levels.
- Students who met minimum fitness levels in three or more physical fitness areas showed the greatest gains in academic achievement at all three grade levels.
- Females demonstrated higher achievement than males, particularly at higher fitness levels.

The California Education Code mandates physical education for all students in grades one through nine, plus one additional year in high school. The goal of these programs should be to provide students with the knowledge, skills, and confidence to participate in health enhancing physical activity throughout their lives. Students in grades one through six are required to have 200 minutes of physical education every 10 school days, and students in grades seven through twelve are required to have 400 minutes every 10 school days. Specific recommendations for teachers, students, and their families are available on the CDE Web site at: <http://www.cde.ca.gov/cyfsbranch/lsp/health/pecommunications.htm>.

Teachers are encouraged to Plan the physical education instructional program to provide students with opportunities to acquire knowledge, and develop skills and confidence in a variety of movement experiences. Include a fitness education component at each grade level. Motivate students to establish regular physical activity habits and assist students in setting goals that will improve or maintain their fitness levels.

In 2001, more than one million students participated in statewide physical performance testing mandated by Assembly Bill 265 in 1995. The law requires that school districts annually administer a physical fitness test designated by the State Board of Education to all fifth, seventh, and ninth graders.

The Fitnessgram, developed by the Cooper Institute for Aerobics Research, assesses six major health-related areas of physical fitness including aerobic capacity (cardiovascular endurance), body composition (percentage of body fat), abdominal strength and endurance, trunk strength and flexibility, upper body strength and endurance, and overall flexibility. A score of 6 indicates that a student is in the healthy fitness zone in all six performance areas, and meets standards to be considered physically fit.

Fitnessgram results from the 2001 administration indicated that 23 percent of California's fifth, seventh, and ninth graders tested could be considered physically fit. Detailed 2001 physical fitness results for schools, districts, counties, and the state are available on the CDE Web site:  
<http://www.cde.ca.gov/statetests/pe/pe.html>.

For more information, please visit the CDE website or contact:

Debbie Vigilat [dvigil@cde.ca.gov](mailto:dvigil@cde.ca.gov) or 916-319-0341

Dianne Wilson-Graham at [dwilsong@cde.ca.gov](mailto:dwilsong@cde.ca.gov) or 916-319-0280



## EUPEA Symposia

The 1st EUPEA Symposia on Quality Physical Education was held in Brussels, Belgium on November 9th, 2002. The European Physical education Association (EUPEA) is an umbrella organisation of professional physical education associations in Europe. The aim of the meeting, was to present the current status of physical education in Europe, with a focus on the aspect of the status of quality physical education and what this means for Education in Europe.

Following is a selection of four of the papers presented in Brussels, a full proceedings book was developed by the Conference and is available by contacting conference organisers at [info@bvlo.be](mailto:info@bvlo.be). Alternately, please visit the EUPEA website [www.eupea.go.to](http://www.eupea.go.to) for more information.

## Quality physical education

Kevin Gilliver

Physical Education Association of the United Kingdom, U.K.



### In this paper I will concentrate on six issues:

1. What is Sport?
2. What is Physical Education?
3. What is High Quality Physical Education?
4. Adding Value to Schools
5. Other Initiatives in England

### 1. What is Sport?

A little confusion reigns in England on what is meant by sport and physical education. To the general public they are the same and they are used interchangeably. The Council of Europe in 1993 provided a broad definition of sport in their European Sports Charter.

‘Sport means all forms of physical activity which, through casual or organised participation, aims at expressing or improving physical fitness and mental well-being, forming social relationships or obtaining results in competition at all levels’.

This is a wide and inclusive definition of sport that extends far beyond traditional team games to incorporate individual sports and fitness-related activities such as aerobics and dance, as well as recreational activities such as long walks and cycling. It extends from casual and informal participation to more serious organised club sport and for the minority involves commitment in pursuit of the highest levels of excellence at Olympic and national level.

In England in 1988 the School Sport Forum provided a broad definition of sport identifying four categories:

- Competitive games and sports
- Outdoor pursuits in which participants seek to negotiate some particular ‘terrain’ such as open country, forests or stretch of water
- Aesthetic movement which involves such activities as dance, rhythmic gymnastics and figure skating
- Conditioning activities which involve activities which improve physical working capacity and fitness.

### 2. What is Physical Education?

In 1991 the Secretary of States’ working group which began to develop the national curriculum for physical education defined physical education as a process of learning, the context being mainly physical. The purpose of this process is to develop specific skills, knowledge and understanding and to promote physical competence.

Different sporting activities can contribute to that learning process and learning enables participation in sport. The focus is on the individual child and on the development of his or her competence, rather than on the activity.

Physical education is achieved through the combination of physical activity and the intellectual processes of making decisions, selecting, refining, judging, shaping, adjusting and adapting. Physical education also involves the development of qualities such as commitment, enthusiasm, fairness, integrity and the concern for quality as well as success.

### 3. What is High Quality Physical Education?

The outcomes of high quality physical education will be young people who can perform reflectively and with increasing physical competence. High quality physical education will help young people to look and feel confident in most physical environments. They will become more self-confident, have greater self-esteem and be more willing to take up an active and healthy lifestyle.

The national curriculum for physical education in England sets out the knowledge, skills and understanding that pupils will need to gain to become skilful, intelligent and independent participants, performers and leaders. This is set out in the four aspects of physical education in which pupils make progress:

- acquiring and developing skills;
- selecting and applying skills, tactics and compositional ideas;
- evaluating and improving performance, and
- knowledge and understanding of fitness and health.

Teaching should ensure that when evaluating and improving performance, connections are made between developing, selecting and applying skills, tactics and compositional ideas and fitness and health.

These aspects of physical education are developed through a range of activities at different key stages (age groups) as set out in the breadth of study.

The national curriculum is structured in such a way that the programmes of study set out what pupils should be taught and an attainment target divided into eight level descriptions of increasing difficulty, plus a description of exceptional performance above level 8. Each level description describes the types and range of performance that pupils working at that level should demonstrate. Progress in the four aspects can be traced through the 8 level descriptions. Teachers are required to make and record judgements of pupils' performance against these standards. They report these judgements to parents. Teachers will determine which level description best fits a pupil's performance. By the ages of 7, 11, 14, 16 (the end of each key stage) the majority of pupils are expected to reach level 2, 4, 5/6 and about 7.

By indicating expectations at particular levels and progression in the subject they can be used to inform planning, teaching and assessment. By the end of each key stage the teacher will have built up sufficient knowledge about a pupil's performance across a range of areas of activity to enable them to make a judgement in relation to the level descriptions. The aim is to make a rounded judgement which:

- is based on the teacher's knowledge of how the pupil performs across a range of activities;
- takes into account different strengths and weakness of that pupil's performance, and
- is checked against adjacent level descriptions to ensure that the level judged to be the most appropriate is the closest overall match to the pupil's performance in the attained target.

Is it acceptable to say that if the majority of pupils across the country are not demonstrating these characteristics then the schools are failing to produce an acceptable physical education curriculum? There may also be a problem for teachers in the consistency of their judgements. Do all teachers agree on what is a good, bad or indifferent performance?

Possible ways of working together on teaching and assessment to improve consistency may involve:

- joint planning between teachers across years or across a key stage;
- liaising with other schools or a local network and arranging visits or cluster meetings;
- the use of the physical education programmes of study to agree upon teaching and learning objectives, learning outcomes, expectations of pupils, learning activities and ways to assess;
- discussing and judging work to develop shared understanding of attainment and attainment levels, and
- comparing the attainment of pupils from different classes and different abilities on common activities.

An agreed understanding of the standards set out in the physical education curriculum will enable teachers to make consistent summative judgements on each pupil's attainment. As a result teachers should be able to:

- confirm their judgements on the basis of their existing knowledge and records of pupil's attainment across a range of activities, and over time

- identify pupils where it is difficult to make a clear judgement because of inconsistent attainment across different aspects leading to an uneven profile. In such cases teachers will need to use their professional discretion and all available information to determine the appropriate level.

#### **4. Adding value to schools**

The Qualifications and Curriculum Authority has undertaken a study to show that high quality physical education and school sport adds value to a child's overall education.

The key findings from the study indicate the following:

##### **1. School leaders who value PE and school Sport:**

- prioritise time and space for PE and school sport,
- appoint headteachers, teachers and coaches with vision and initiative,
- respond to pupils' interests and ideas,
- celebrate achievement, and
- involve the community.

##### **2. PE teachers and sport coaches make a significant impact when they:**

- are experts in PE and school sport,
- are enthusiastic about PE and school sport,
- believe in their pupils,
- talk to their pupils about their progress,
- give of their time to make things happen, and
- keep up with new ideas.

##### **3. Best progress comes from focused practice that is:**

- regular and frequent,
- purposeful and intense, and
- motivational and enjoyable.

##### **4. PE and school sport impact on school improvement**

High levels of participation in high quality PE and school sport lead to:

- improved attainment in national curriculum PE,
- better progress in PE,
- higher attainment across the curriculum,
- improved behaviour,
- improved attendance,
- better attitudes to learning,
- a healthier lifestyle for pupils, and
- improved citizenship and leadership qualities.

#### **5. Other initiatives in England**

The Government believes that high quality physical education and school sport:

- raises standards,
- improves the health of the nation, and
- helps to ensure that the UK competes successfully on the international stage.

All children have an entitlement to two hours of high quality physical education and school sport each week, within and beyond the curriculum.

The Government is also highly committed to making physical education, school sport and links with clubs a priority. Two Government departments (education and sport) and the Prime Minister are working together to ensure that this happens. The initiative will be carefully monitored and evaluated.

### I. PE, Sport and Club links.

The PE, Sport and Club links initiative will achieve:

- A national infrastructure for PE and Sport,
- Improved quality of teaching, coaching and learning in PE and Sport,
- Increased numbers of 5 to 16 year olds moving into junior sports clubs, and
- Increased percentages of 5 to 16 year olds spending a minimum of two hours a week on high quality PE and sport.

### II. Sports Colleges

Three years ago a few secondary schools were designated as Specialist Sports Colleges to give priority on the school curriculum to physical education and school sport. By next year there will be 110 such colleges/schools and by 2006 there will be 400. The Specialist Sports Colleges are at the forefront of developments in school physical education and sport. All work with other schools to share their expertise, resources and good practice so that locally there is a 'family of schools' working together to provide training and support for teachers in secondary and primary schools and to maximise opportunities for young people.

### III. School Sport Co-ordinator Initiative

In addition to the introduction of Sports Colleges, the Government has begun to establish new posts in schools to strengthen and develop the range and quality of physical education and sport available to young people of school age. The School Sport Co-ordinator initiative receives funding from the Lottery Fund.

An essential element of the initiative is the education and training programme. The programme supports the professional development of teachers who are locally involved.

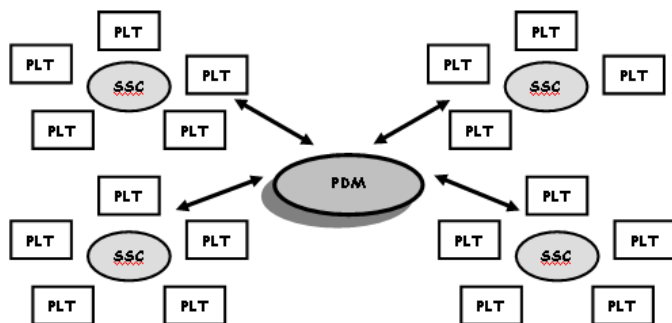
The strategy for the School Sport Co-ordinator initiative is for the development of physical education and sport based on five key principles:

- Support for physical education in schools,
- Integrated sports development and partnership,
- Focus on disadvantage and inclusion,
- Schools working together in 'families' or clusters, and
- A whole school approach to this development.

The key to the above principles is to raise standards.

There are about 100 school centred partnerships further developing the family of schools concept. A secondary school supports work in other local secondary schools and their feeder primary schools.

The preferred partnership model is as follows:



#### IV. Professional Development Board

The Professional Development Board for Physical Education (PDB-PE) was formed in 2001, following a joint agreement between PEAUK, BAALPE and YST.

The PDB-PE was established to assure the high quality of the Continuing Professional Development (CPD) of all teachers of physical education for the benefit of young people and to raise standards in the subject.

This quality assurance will ensure that Development Activities offered are of a sufficiently high standard and that Providers who offer and lead these activities have a proven track record of high quality provision.

In addition, to support teachers of physical education the PDB-PE will:

- create a register of approved Development Activities and Providers (Corporate and Individual)
- provide guidance on CPD appropriate to teachers realising different career aspirations. This guidance will be in line with Government strategies to enable teachers to develop within the teachers' standards framework.
- commission CPD in areas in which few or insufficient Development Activities exist.

There are many other initiatives in physical education and school sport being developed for the benefit of youngsters. It is a very exciting and onerous time for all those involved in teaching the subject. Physical education and school sport has never had a higher profile.

All the initiatives must lead to the raising of standards and the developing of high quality physical education. The implications for all of us in the UK are immense and extremely challenging.

Are we on the right path?

What is happening elsewhere in Europe to develop high quality physical education?

Can we help each other?

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Kevin Gilliver  
Physical Education Consultant  
Physical Education Association of the United Kingdom  
Ling House, Building 25  
London Road  
Reading RG1 5AQ  
UK



# The Quality of School Physical Education in Flemish Secondary Schools

Paul De Knop, Marc Theeboom, & Kristof Huts  
Vrije Universiteit Brussel, Belgium

## Introduction

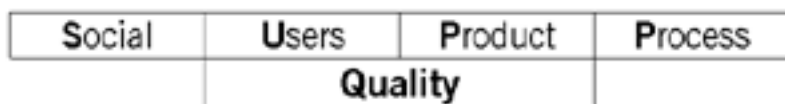
During the last decade the concept of quality has become very popular in different sectors of society both in profit as well as non-profit sectors (De Knop, 1998; De Knop & De Martelaer, 2000). At the same time, the call for more qualitative criteria also became more pronounced within the field of education (Trompedeller, 2000). In Flanders, the northern Dutch-speaking part of Belgium, quality care captured a central position within the educational policy of its Government (Verhaeghe et al., 1998; Michielssens, 2002).

A decade ago Flemish schools were merely financed, based on their total number of students (quantity). Today, the number of students as the only criterion for financial support is considered unacceptable. The Department of Education of the Flemish Community acknowledges that also qualitative criteria have to be taken into consideration (De Droogh & Nelen, 2000). As a consequence, different structural initiatives to monitor quality care within the educational system (i.e., control and promote quality), were introduced (Kelchtermans & Van de Poele, 1995). The current external quality care policy of the Flemish government is based upon three main pillars, namely: (a) the decree on the final attainment levels of students, (b) the decree on the financing of continuing-education courses of teachers and (c) the decree on the Schools Inspectorate and the Pedagogical Counselling Office (17 July 1991) (Doom, 2000; Michielssens, 2002). The decree on the Schools Inspectorate and the Pedagogical Counselling Office created a new trend within the Flemish Educational Policy. Under the influence of austerity measures, this decree granted more autonomy to the schools, burdening them with extra tasks and responsibilities (Michielssens, 2002). One of these extra tasks was the initiation of an internal quality care policy. In this context taking care of the school physical education quality can be considered as an obligation of every Flemish school.

## Evaluating the quality of school physical education in Flanders

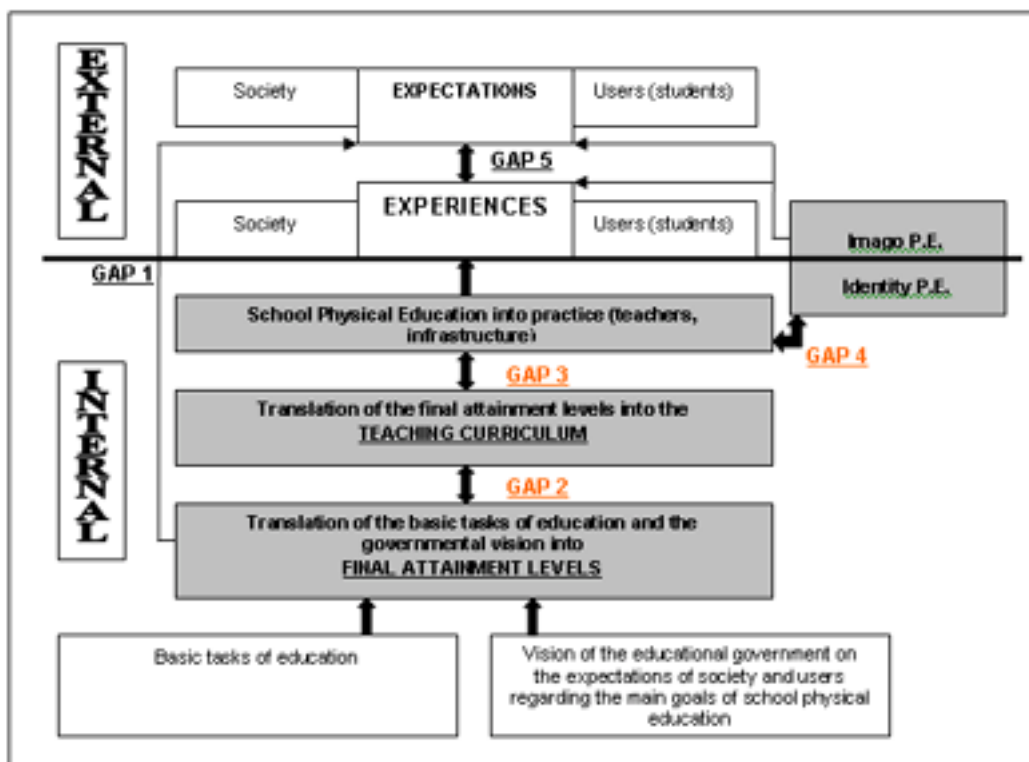
Working at quality must be conceived as a cyclic process. An approach that constantly questions and seeks to improve the quality of processes, products and services (Vandenberghe & Kelchtermans, 1997; Europese Commissie, 2000). First, clear short and long term goals need to be formulated. To reach these goals, specific action plans need to be set up. The next step is an evaluation, followed - if necessary - by an adjustment of the pronounced goals and/or actions (De Knop & De Martelaer, 2000).

Before the current quality of school physical education in Flanders can be analysed, specific standards are to be postulated as the term “quality education” can be interpreted in many different ways (Louwet, 2002). The theoretical quality model presented by van Bottenburg and Schuyt (1996); and van Bottenburg, Van’t Hof, and Oldenboom (1997) offers a framework within which quality features for school physical education can be organised. In accordance with this theoretical model one can state that school physical education is of good quality when it fulfils (a) the (justifiable) expectations of society, (b) the potential wishes and expectations of the pupils and their parents, (c) the criteria laid down by experts, and (d) when school physical education is organised effectively and efficiently.



**Figure 1:** The four types of quality according to van Bottenburg et al. (1997)

In order to evaluate the different types of quality within the school physical education subject, the model of van Bottenburg and Schuyt (1996) was integrated within the “Gap Analysis Model” or “Service Quality Model” of Parasuraman et al. (1985).



**Figure 2:** The GAP-analysis model of Parasuraman et al. (1985, 1988) in function of the school physical education subject.

By doing this a framework was developed which not only evaluates the quality of school physical education but also tracks the level of origin at which quality problems do occur. The “Gap Analysis Model” is based on 4 gaps which, in total, try to explain the discrepancy between the expectations and experiences of society and students with regard to school physical education (GAP 5). GAP1 of the presented theoretical model examines the social quality of the school physical education subject. Looking at social quality can be conceived as an obligation because in Flanders, as well as in many other neighbouring countries, it is acknowledged that the governmental interpretation of quality education should match the expectations of society. As a consequence, a first step to evaluate the current quality of school physical education is to find out if today’s society agrees with the operationalisation of what quality school physical education should be according to the Flemish Ministry of Education, or in other words, the course specific final attainment levels (Gombeir, 1993). Bearing this in mind, this study will focus on three main research questions:

### Research questions

- What expectations has the current society got towards quality school physical education?
- Do these social expectations match the current course specific final attainment levels of school physical education?
- How well do the expectations and experiences of society correspond to the main goals of school physical education?

## Methodology

### Participants

117 organisations from the social midfield and five aldermen with a combined office of sport and education agreed to participate in this study. The social midfield was defined as a unity of organisations, institutions and movements that fulfil an intermediary function between individuals on the one hand and society on the other hand (Siongers, 2000). In this study the term social midfield was interpreted broadly. As a consequence, a varied group of organisations, representing different social sectors, was selected. An overview of the different participating sectors, the total number of questionnaires sent, the number of returns and the degree of response are reported in table 1.

**Table 1:** Overview of the total number of questionnaires sent, the number of questionnaires returned and the degree of response (%) for each participating social sector.

<b>Sector</b>	<b>Number Sent</b>	<b>Returned</b>	<b>Response Percentage</b>
1. Education	24	21	87.5%
2. Sport	32	26	81.2%
3. Youth	28	16	57.1%
4. Media	21	12	57.1%
5. Health	17	11	64.7%
6. Social services	11	7	63.6%
7. Economics	15	8	53.3%
8. Culture	10	7	70.0%
9. Other	11	6	54.5%
10. Politics	10	5	50.0%
11. Association of parents	3	3	100%
<b>Total</b>	<b>182</b>	<b>122</b>	<b>67.0%</b>

The degree of response exceeded the 50.0% barrier within all the social sectors. 57.3% of the respondents were male and 42.7% female. The age differed from 18 to 63, with an average of 37.6. 28.2% of the respondents have a secondary school teacher's or master's degree in physical education and 48.3% were a parent.

### **Data collection**

Data was collected via a questionnaire which consisted of open (n = 5) as well as closed (n = 4) questions and were sent to the different privileged organisations by post, fax or e-mail. The use of open questions had the advantage of not limiting the answers of the respondents (De Pelsmacker & Van Kenhove, 1999). This was a decisive factor as the main aim of this study was to get a general and broad view on the expectations, visions and experiences of society with regard to the main goals of secondary school physical education. For the analysis of the collected data the SPSS software package was used.

## Results

**Table 2:** Overview of the social expectations and visions with regard to the main goals of secondary school physical education in Flanders.

<b>1.</b>  <b>PHYSICALLY FIT AND HEALTHY LIFE STYLE (95.1%)</b>	<b>1.1. Learn to be positive towards and incite to (life time) sport activity</b> 1.1.1. Initiate in a large diversity of different sports (88.7%) 1.1.2. Emphasise the importance of sport and physical activity (13.7%) 1.1.3. Provide pleasure through sport and physical activity (16.1%)	<b>86.3%</b>
	<b>1.2. Developing fitness</b> 1.2.1. Developing the physical condition (25.8%) 1.2.2. Developing endurance, flexibility, strength, balance, etc. (5.6%)	<b>39.5%</b>
	<b>1.3. General physical development</b>	<b>22.6%</b>
	<b>1.4. Promotion of general health</b>	<b>9.7%</b>
	<b>1.5. Emphasise the importance of warming up before, and cooling down after, physical exercises</b>	<b>1.6%</b>
	<b>1.6. Hygienic rules</b>	<b>1.6%</b>
<b>2.</b>  <b>MOTOR COMPETENCIES (52.4%)</b>	<b>2.1. Provide responsible and safe movement possibilities</b> 2.1.1. Offer minimal physical activity (19.3%) 2.1.2. Pay attention to posture and back schooling (6.4%) 2.1.3. Learn to observe safety regulations, agreements and rules (4.8%)	<b>30.6%</b>
	<b>2.2. Widen and deepen the basic motor competencies</b>	<b>26.6%</b>
	<b>2.3. Fair play and learn to deal with competition, gain and loss, feelings of joy and sadness</b>	<b>10.5%</b>
	<b>2.4. Reflect about movement</b>	<b>0.8%</b>
<b>3.</b>  <b>SELF-IMAGE AND SOCIAL FUNCTIONING (52.4%)</b>	<b>3.1. Learn to operate in group activities (work together, team spirit)</b>	<b>41.1%</b>
	<b>3.2. Learn to assess personal possibilities and limitations (self-confidence, self-image)</b>	<b>16.9%</b>
	<b>3.3. Learn to show effort, persistence and perseverance</b>	<b>13.7%</b>
	<b>3.4. Other social skills (spontaneity)</b>	<b>1.6%</b>
<b>4.1. Variation and relaxation within the school curriculum</b>		<b>21.7%</b>

## Results

Social expectations regarding the main goals of school physical education

Table 2 gives an overview of the expectations and visions of today's society with regard to the main goals of secondary school physical education in Flanders. The expectations from the different social sectors show a lot of resemblance to the current course-specific final attainment levels. The arrangement of social expectations within the three main domains of course specific final attainment levels made it clear that the respondents consider the development of a fit and healthy life style (95.1%) to be a main goal of the school physical education subject. According to the respondents, the main aims within this domain are: (a) the stimulation of positive attitudes towards sports and physical activity and the provocation towards (life-long) sporting activities (86.3%), (b) the focus on general physical development of students on the pretext of "Mens sana in corpore sano" (39.5%) and (c) the improvement of general physical fitness of students (22.6%). The respondents state that stimulating students to adopt a positive attitude towards sports and physical activity can be done by experiencing a diverse range of different sports (38.7%), by placing the emphasis on the importance of sports and physical activity (13.7%) and by ensuring enjoyment through sport and physical activity (16.1%). With regard to the improvement of physical fitness of the students, a distinction is made between the general physical condition (25.8%) and the development of endurance, flexibility, strength, speed, etc. (5.6%). Other issues acknowledged by the respondents as important goals within the domain "Fit and healthy life style" included: the promotion of general health (9.7%), emphasising the importance of warming up before and cooling down after physical activity (1.6%) and the utilisation of hygienic rules (1.6%).

The development of motor and social competencies of youngsters were both considered important by 52.4% of the respondents. The development of motor competencies should, according to the respondents, best focus on (a) providing responsible and safe movement possibilities (30.6%) and (b) widening and deepening the basic motor competencies of students by teaching them some basic sport technical and movement skills (26.6%). Providing responsible and safe movement possibilities to students should, according to the respondents, involve: (a) the offering of a minimal amount of physical activity (19.3%), (b) paying attention to

posture and back schooling (e.g., carrying heavy loads, correct sitting position, teaching optimal lifting and carrying techniques, etc.) (6.4%) and (c) teaching students to observe safety regulations, agreements and rules (4.8%). Other issues identified by the respondents as goals that can be classified within the domain of motor competencies are (a) attention to fair play and learning to deal with competition, gain and loss, feelings of joy and sadness (10.5%) and (b) learning to reflect upon movement (0.8%).

According to the respondents, the school physical education subject should also pay attention to the development of the self-image and social skills of students by teaching them to (a) operate in group activities (41.1%), (b) assess personal possibilities and limitations (16.9%) and (c) show effort, persistence and perseverance during physical activity (13.7%).

Finally, 21.7% of the respondents state that school physical education should provide variation and relaxation from the compulsory daily routine of sitting still behind a school desk. The school physical education subject should, according to these respondents, in other words provide physical relaxation to compensate for the daily strenuous mental activities during the other more theoretical oriented school subjects.

### **Feasibility of school physical education goals**

More than half of all respondents in this study are convinced that their expectations towards school physical education are too seldom being met (55.6% sometimes and 1.6% never to sometimes). No one explicitly states that his or her expectations with regard to the main goals of school physical education are never being met. The most pronounced reason for not reaching the expectations/goals was, according to the respondents, the lack of curricular time allocation (49.3%). Other reasons were:

- activities that are too competition oriented, not enough varied and unattractive for students (39.4%);
- a shortage of qualified and/or motivated personnel (38.0%);
- underestimation of school physical education by students, parents, directions, other subject teachers, the government, etc. in comparison to other more theoretical oriented school subjects (ie. image) (32.4%);
- lack of motivation of students with regard to physical activity as a result of family and/or social influences (29.6%);
- inadequate material resources at school (25.3%);
- lack of differentiation and/or individual attention during school physical education lesson (12.6%);

Finally, 28.2% of the respondents state that the pronounced goals/expectations are usually being met and 1.6% hesitate between “sometimes” and “usually”. Only one respondent (0.8%) thinks that the pronounced goals/expectations are always being attained and 12.1% of the respondents stated they had “no opinion” on this subject.

The respondents made some suggestions that might raise the likelihood of reaching the pronounced goals. Most of these suggestions focussed on the organisational point of the school physical education subject e.g. increasing curricular time allocation (39.5%), more qualified and motivated physical education teachers (43.6%), increase in interest toward sports by school management and the other subject teachers (43.6%) and improvement of the material resources (21.8%) . The respondents did not formulate improvements with regard to the content of school physical education. They only stress their appreciation for the current course-specific final attainment levels (12.9%) and plead for the initiation of a large variety of sporting activities that correspond to the expectations and living environment of today’s students (18.5%).

### **Conclusion**

Based on this study it can be concluded that school physical education does not yet reach a satisfying social quality standard. Although the current final attainment levels of school physical education are a surplus value, as they incorporate well the expectations of today’s society, their effective and efficient implementation and realisation is susceptible to many different factors. More than half of the respondents in this study stress that the pronounced expectations (and as a consequence also the course-specific final attainment levels) are too seldom being met. As a consequence, questions do arise about the feasibility of the current final attainment levels of school physical education. Maybe too many goals are being purchased in too little time and/or maybe the pronounced goals are not being met as a consequence of organisational hindering. In this matter the implementation of a course specific quality care system may contribute to a more effective and more efficient realisation of today’s course specific final attainment levels of school physical education.

## Epilogue

In the next phase of this research project the users (students and parents) will be questioned about their expectations and experiences with regard to school physical education. Simultaneously we will focus on the feasibility of the current course-specific final attainment levels of school physical education by means of in-depth interviews with physical education teachers. These persons will be asked to describe what they consider to be minimal and/or ideal conditions to be able to fulfil the current course specific final attainment levels of school physical education.

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Paul De Knop  
Vrije Universiteit Brussel  
Pleinlaan 2  
1050 Brussels  
Ph: +32-2-6292745  
Fax: +32-2-6292899  
[pdknop@vub.ac.be](mailto:pdknop@vub.ac.be)

# Physical Education: The Importance and The Intention

Harry Stegeman

W.J.H. Muller Institute, The Netherlands



## Abstract

Through the years, youngsters consider physical education one of the most favourite school subjects. Yet exactly this subject is almost continuous coping with image and justification problems. What good will physical education do? Is school able to do without it?

The why and wherefores of school physical education have been answered quite differently through the past decades, in The Netherlands as well in other countries in the Western world. The subject has for instance been justified because of the (supposed) contribution to personality building of children and youngsters. It was considered as compensating the disadvantages and flaws of other school subjects too. Last but not least health-improving effect have been emphasised.

In this paper the argumentation is simply as follows. Participation in movement culture (including sports) is undeniably important, for the individual as well as for society as a whole. The participation figures and a lot of research results give no rise to misunderstanding. School physical education plays a key role in the preparation for this participation, also because it reaches all young people, offers an adequate pedagogical climate and can provide expert supervision. School physical education is aimed at making students competent for independent, responsible, perspective-rich and continued participation in the movement culture.

## Introduction

School physical education is coping with image and justification problems almost world-wide. In many countries the professional workers in this field themselves do not seem to have a clear picture of the unique importance and objectives, or they do not sufficiently succeed in communicating this importance and these objectives convincingly. The result is not uncommon: decrease in teaching periods, financial, material and personnel means and a decreasing status and self-appreciation (Hardman & Marshall, 1999).

The Netherlands does not seem to share this depression. In the future all schools for primary education will see specialist PE-teachers. Recently the subject scored relatively well in an evaluation of the basic secondary school curriculum conducted by the Schools Inspectorate and students in the secondary stage of secondary education can choose the subject as an optional examination subject (besides the regular lessons). At the same time, however, physical education in technical and vocational training for 16 to 20 year olds has come under much pressure lately. Experience has shown that the subject will face problems, if the government does not take protective measures. Apparently, not everyone seems to be convinced of the value of physical education. Against this background in The Netherlands as well, there is every reason for a reflection on the past and the future of physical education. An extensive study of the Dutch and international literature on justification of physical education was conducted. Based on that, answers to the questions of the importance and the objectives of the subject at the start of the 21st century were given (Stegeman, 2000; 2001). This paper represents a brief summary of the findings.

## Research questions

In the first part of the study two questions were tackled: (1) in what way was school physical education justified in the Netherlands during the past fifty years?; (2) what general objectives were assigned following these justifications?

In the first three-quarters of the period studied, physical education in the Netherlands was mainly based on theories of the discipline firstly, from Austria and later, West Germany. In the past decade developments in Germany were not paid much attention to, nor were they focused in the literature in the English-speaking world. This was the reason for two more research questions, which were focused on in the second part of my

study: (3) in what way was physical education at schools justified in Germany during the past decade and what general objectives were assigned following these justifications?; (4) in what way was physical education in the English-speaking world (particularly the US) justified the past decades, and what general objectives were assigned following these justifications?

In answering these four research questions theoretical treatises and 'official' sources (curriculum documents etc.) were studied and analysed.

The last part of the study dealt with the conclusion and a personal view on the importance and objectives of physical education.

### **Classification models**

In analysing the literature on the justification of physical education, a classification model developed by Scherler (1994) was utilised. After ordering and valuing a multitude of arguments for physical education, he distinguishes - what he called - 'innerschulische' and 'ausserschulische' justifications of the discipline on the one hand, and 'innersportliche' and 'übersportliche' on the other.

'Innerschulische' justifications indicate the compensation function of physical education: the discipline has to offset the undesirable side effects (for example: imbalance, lack of movement, boredom and the like) of other subjects or of school as such. The 'ausserschulische' justifications are put forward more often: the subject is being accounted for, due to its revenues for extramural life. The idea is that the school has to fit its students out for (future) life situations.

The 'ausserschulische' approach has two versions: the 'innersportliche' and the 'übersportliche'. The 'innersportliche' way of justification is the following: physical education serves as a means to make students capable of participating in the extramural movement culture. 'Übersportliche' justifications go further: physical education contributes to the realisation of general objectives beyond functioning in the movement culture.

In analysing the literature on the general objectives of the subject, Crum's classification of characteristic subject concepts (curriculum orientations) and objectives was used: (1) the biological training-of-the-physical concept; in the programmes based on this approach, the following objectives are assumed: muscular reinforcement, improvement of the cardiovascular capacity, improving agility and the like; (2) the pedagogistic education-through-movement concept; the objectives have been formulated at a rather abstract level: besides forming of posture and movement, it concerns effects such as will power, stamina, concentration, self-confidence, sense of self-respect, community spirit and cognitive development; (3) the personalistic movement education concept; the educational objectives are formulated in terms of personal movement competences; (4) the conformist sport socialisation concept; the objective of the subject is to familiarise the students with, and make them competent at, the techniques, tactics and rules of the traditional, common branches of sport; (5) the critical-constructive movement socialisation concept; objective is realisation of a multiple movement competence: the students should be made competent for a responsible participation in the movement culture, now and in the future, in changing environments and roles and from various participation motives (Crum, 1994; 1998).

### **PE in The Netherlands during the past half century**

Until World War II Dutch physical education was primarily influenced by opinions in Scandinavia, Germany and Austria. Orientation on developments in (West) Germany remained later on, however to a decreasing degree.

The initial influence from the Scandinavian and German 'systems', although different, corresponded where it concerned the interpretation of the human body: this was considered an object, which could be understood and controlled from mechanical and biological laws. This led to an ideology in which the school subject physical education was accounted for, because of the physical-forming and physical-normalisational effects that were or could be realised by those physical exercises or movements. In terms of Scherler's classification of subject justifications and Crum's distinction of objectives: there are 'innerschulische' and 'übersportliche' justifications and objectives that fit the biologically training-of-the-physical concept.

The so-called 'Austrian School' tried to find a connection with the 'Reformpädagogik', but also kept adhering to the old ideas from the Scandinavian and German systems: the biological orientation could be recognised in many publications. The subject justification was mainly 'übersportlich', the general objectives were mainly biologically-oriented.

From the fifties, physical education in the Netherlands for some decades relied heavily upon the work by the Dutch scholars Gordijn and Rijsdorp. For their view on corporality and movement, they base themselves on

the philosophical anthropology and chose for a relational movement concept: one person moves on the basis of relevant imports that he or she recognises in that situation; moving is interpretation-based acting. They were oriented towards the mainly humanistic-oriented pedagogy and the 'bildung-theoretical' didactics common at the time. Rijdsdorp considered physical education 'pedagogical acting in the field of movement and the body experience'. The pedagogical intentions to be realised through teaching the physical activities are in line with the ways in which man approach the outside world. Physical education concerns movement instruction, formation of performance, social education and physical development. Gordijn has laid the foundation for the 'theory of movement education'. He does not search for a justification of the subject in values outside movement, but has built upon the idea that moving and being able to move are important matters in themselves for individual development and existence: movement education concerns systematic, pedagogical influence of human movement, regarding 'opening and broadening the locomotive area of life'. Rijdsdorp's justification for the subject is 'innersportlich' as well as 'übersportlich'; Gordijn's opinion is strict 'innersportlich'. Rijdsdorp's objectives are the result of a pedagogologic education-through-movement concept, while Gordijn's view is pure personalistic.

The education-through-movement approaches lost their dominant position in the early 1970s. In the period of 1975-1990 there were roughly five different opinions: (1) physical education as fitness training, or 'physical exercise', (2) 'movement education', (3) sport education, (4) communicative movement education and (5) critical-constructive movement education.

The importance of 'physical exercise' lies in warding off various social threats for the (development of the) physical condition and health. Objectives of the subject are muscular reinforcement, improving the cardiovascular capacity, improving agility and the like. The subject justification is 'innersportlich' if improving the condition to be able to do sports better is the drive, while in all other cases it is 'übersportlich'. The objectives fit in with the 'biological' approach.

'Movement education' refers to the interpretation of Gordijn's movement education theory. The personalistic one-sidedness has been abandoned; the fact that physical exercise as an individual way of behaviour has been embedded in the socio-cultural relationships is explicitly accounted for. The task of physical education is to teach students to participate in the activities of the movement culture. They should be able to recognise and realise what is most important within these areas of activities. The justification for 'physical education' is 'innersportlich'; the objectives result from a critical-constructive view.

Supporters of the 'sport education' theory are oriented towards the performance in competitive sports, organised and regulated per sport. The objective of the subject is that students obtain the conditional basis and learn the techniques, tactics and conventions that are needed to play such a sport. In 'sport education' the subject justification 'innersportlich' applies; the objectives come from the conformist sport socialisation concept.

In the latter half of the 1970s, 'communicative movement education' came into being, a view opposite to 'sport education' and popular in circles that were critical of the social structure. It aimed at changing the (sports) society. Communicative physical education aims at contributing to independence of the students. They should show a critical involvement in the area of sports, make their own choices in a responsible way, take part in decisions as to goals and processes of physical education, participate in social interaction relationships and show an orientation towards the recreation-aimed sport. The subject is justified 'innersportlich' as well as 'übersportlich'; the objectives fit in with the critical-constructive movement socialisation concept.

'Critical-constructive movement education' builds on communicative movement education, provided that the political undertones and the central place of (verbal) communication are abandoned. The 'practical value' is important. The subject should contribute to the students' competence for a critical and constructive participation in the movement culture, now and in the future, in changing environments and roles and from different participation motives. The justification is 'innersportlich'; the objectives come from the critical-constructive movement socialisation concept.

In the course of the 1980s, the discipline has eventually been directing itself to the critical-constructive movement education concept, proof of which are the legal requirements (attainment targets and standards) developed for all educational levels. The essence of this approach is that physical education should make youngsters multi-competent for an independent and critical participation in the extramural movement culture, already being considerably differentiated.

## Some recent developments in Germany

In Germany during the past decade there has been much discussion about the fact that physical education should do more than making students competent for participation in the extramural movement culture only. In the first half of the 1990s prominent theoreticians held a heated 'instrumentational debate'. The issue was to what extent physical education could (or should) be used as a means to satisfy non-disciplinary objectives. Scherler (1997) (tentatively) weighed the pros and cons. He considered the 'innersportliche' and 'übersportliche' line of argumentation both permissible and necessary.

The renaissance of the 'pedagogical task' seems to continue by this debate, the current discussion on values and moral standards and the (threatening) reduction in lessons as catalysts. After the 'Realistic Turn' around 1970 (when the education-through-movement approaches lost their dominant position) the German specialists - or at least an important part - prepared themselves for a 'Pedagogical Turn' in the course of the 1990s. The new guidelines and curricula for 'Sport' in several German federal states, where North Rhine-Westphalia is the trendsetter, require that the subject should be taught as 'erziehender Sportunterricht' (pedagogical PE) from various pedagogical perspectives (e.g. Kurz, 1998).

This means that in Germany there is an increasing tendency to consider the subject in a broader sense than just a preparation for participation in the movement culture. The subject is also justified, due to its special significance for children's and youngster's development in general and, moreover, to its special possibilities for approaching a number of the 'characteristic key problems in the modern world': aiming only at subject-specific goals ignores the educational task the school has and weakens the position of physical education among the other subjects. The general educational goals should be the standard for formulating the goals of the individual subjects. So physical education does not only concern education of the physical, but also education through the physical.

The contemporary approaches of physical education in Germany are too diverse to justify general statements as to justification and objectives. It can be concluded, however, that after the subject having been justified 'innersportlich' for several years, it is now also being justified 'übersportlich'. The objectives increasingly fit in with the critical-constructive movement socialisation concept.

## A rough sketch of developments in the English-speaking world

In American PE-theory over the past century, five main concepts can be distinguished. According to Siedentop (1983) these are: education of the physical, education through the physical, movement education, humanistic physical education and sport education. The first two concepts are quite similar to the biologically training-of-the-physical concept and the pedagogistic education-through-movement concept respectively, as known in the Netherlands and Germany. The sport education concept has characteristics of the moderate sport socialization opinion.

In the US, the education-through-the-physical approach was prominent until the late 20th century. Physical education was considered a pedagogical activity that contributed to the entire personal development. From the 1980s primarily, the sport education concept applied. The objective was that students were prepared for participation in socially relevant sport, game and dance activities.

In the early 1990s physical education faced problems, due to questions from the society, being confronted with government budget cuts, and the students, lacking motivation and asking what exactly the benefits and practical value of the school subjects were.

Curricula and guidelines for physical education that were developed in the English-speaking world over the past decade, indicated into which direction physical education was going at the end of the 20th century (e.g. NASPE, 1995; DFE, 1999; AEC, 1994). The objectives are considerably concerned with the development of health and fitness. At the moment in Canada, Australia and New Zealand the subject is being called 'health and physical education'. In most programmes (also) the developments of motor skills or motion skills for participating in a movement culture have a prominent place. It is frequently pointed out that the person's self-image is important as a motivational factor. Finally, the development of social skills is considered increasingly important, also regarding the social problems in today's society.

The english-speaking world is too large and the opinions of the subject too differentiated to get a univocal answer to the question about opinions on the importance and the objectives of the subject. If it concerns the justification of physical education, the conclusion seems correct that the 'übersportliche' approaches (particularly health and social skills) gain power. The objectives are from the conformist sport socialization perspective for the greater part; the critical-constructive movement socialisation approach seems to be increasingly supported, however.

## **A personal view on the justification of physical education**

There is every reason to opt for the 'innersportliche' justification of the subject: movement education is simply important because participation in the movement culture is important. Movement culture includes those leisure activities, where movement activities or physical movements are dominant; the motives for participation can be either extrinsic or intrinsic.

Why decide in favour of this way of legitimizing physical education? In conflict with the 'innerschulische' way of justification is, that it is only a derivative: physical education as compensation can merely exist by the grace of the characteristics and, particularly, the flaws of other school subjects, or the way in which 'education in general' is organised. This way of justification, therefore, is only acceptable as an additional argument.

The problem of the 'übersportliche' justifications is either that the objectives cannot be satisfied, or it cannot be proved that it is physical education that plays a role in the realisation. It seems that in situations in which 'übersportlich' is justified, the (possible) social interests of sports and movement in general are translated into objectives of physical education (that in fact exceed the boundaries of the subject) much too easily.

Thus, actually the most logical, 'innersportliche' way of justification of physical education applies: physical education (or movement education) is important, since participation in the movement culture is important. At school, students participate in movement activities in order to improve their competence for it. The subject does not share this pretension with any other school subject, and can realise it without any doubt.

This stand raises the following two questions: (1) why is participation in the movement culture important?; (2) why is this preparation a task for the school?

If it concerns the importance or necessity to participate in the movement culture, a distinction should be made between the (possible) importance for the individual and that for the society. In practice they are often linked.

The individual considers the movement culture important, as is evident from the participation figures: in The Netherlands for instance over 60% of the people practise some kind of sport. In the literature different functions have been indicated: the exploratory function, the productive function, the communicative function, the comparison function, the impressive function, the expressive function and the biological adaptive function of movement in the development and existence of people, with differing emphases depending on age (e.g. Crum & Stegeman, 1994).

The participation figures also demonstrate the social importance. The literature (e.g. Van Bottenburg & Schuyt, 1996; De Knop & Hoyng, 1998) points to, for example, the contribution of participation in the movement culture to the forming of identity, socialisation, integration and emancipation. Moreover, exercising can contribute to the prevention of various diseases and to influence the disease processes favourably. Also economically speaking, sport and movement are beneficial.

Obviously, physical education is not the only way of realising participation in the movement culture. But it is beyond doubt that school should play a key role in the introduction in, and the preparation for, this participation, also because it (a) reaches all young people, so also the movement-poor and socially-poor, will find the way to sport more easily, (b) can offer tailor-made multiple and transferable learning experiences and (c) can provide expert supervision and an adequate pedagogical climate.

## **A personal view on the general objective of physical education**

Physical education is justified from the conclusion that participating in the movement culture is important. With this, also the general objective of the subject has been determined: to prepare students for that participation. Along with that, school has to stimulate positive attitudes towards sports and physical activity and to encourage (life time) sporting activities. Following the critical-constructive movement socialization concept and taking the significance of participation in the movement culture (as both clarified above) into account, the general objective can be accentuated as follows: physical education is aimed at making students competent for independent, responsible, perspective-rich and continued participation in the movement culture. What does that mean?

## **Competency for participation in movement culture**

When you are participating in movement situations, you have to deal with three kinds of problems (Crum & Stegeman, 1994). First of all there are the movement-problems such as: you have to throw the ball, to jump over the vaulting horse or swim across the river. Participation in movement situations requires, that you are able to master the movement skills, necessary for that activity.

The second type of problems has to do with the circumstance that in most of the movement situations you



are together with other people. That means that you have to consider other people's expectations and capabilities. Participating in movement situations asks for specific social skills.

There is a third type of problems. You have to know how to adjust rules of games, how human movement and fitness and healthiness are linked, how learning processes go, etc. You have to know, furthermore, about the 'manoeuvrability' or the transferability of learning results: the chance that a child can apply or practise things he/she learnt in similar or corresponding movement situations, is influenced by the understanding he/she has of the nature of these similarities (Loopstra, 1999). So participating in movement situations requires knowledge and an understanding of them too.

In brief: children who want to participate in movement situations have (1) to learn to move, (2) to learn to move together with others and (3) to learn about movement and movement situations.

### **Independent participation**

Students will participate (later on) in movement culture with a high amount of independence, especially since in many movement situations outside the school there is no companion. This means that in school they have to learn to act and be self-reliant; educational learning situations should be such that students have the opportunity to increasingly develop independently.

This is essential. It is known that that successful experiences, required for continuing participation, are more likely when students define the tasks and performances themselves. The experience that achievements are the result of ones own, self-chosen behaviour strengthens the motivation and the experience of being competent (Harter, 1978).

There is not only moving behaviour in movement situations. The activity has to be started, deliberations may be required and often a kind of guidance and judgement is necessary. Therefore self-reliant and independent participation is only possible when students show a multiple participation competence: they should not only realise the role of mover, but they should also learn to 'organise' movement activities.

### **Responsible participation**

Participation should be in a responsible way. That means for instance that dangerous situations and risks of getting injured have to be avoided as far as possible.

It means, moreover, that prevailing moral standards and values have to be considered. Regarding these, one should think of taking responsibility for the self and others, taking principles of fair play into account, tuning your behaviour to the qualities and capabilities of others and so on and so forth.

This all requires, for example knowledge, insight and skills as to the prevention of physical complaints now and in the future, the capability to associate with others in a respectful manner and an orientation of a clear and manageable value system, which enables a critical inclusion of traditions and customs within an existing movement culture.

### **Perspective-rich participation**

Participation has to be perspective-rich. Everybody must have the possibility to gain experiences of success and to enjoy participation. Success-experiences do influence motivation in a positive way. They invite continuation and the feeling of being up to doing (somewhat) more difficult tasks. Experiences of being successful, and especially the consciousness of that, gives the notion of getting a grip on the situation. The additional feelings of competence ends in more frequent participation in sports and less drop out. Positive experiences during school time lead to a higher level of activity afterwards (Biddle & Chatzisarantis, 1999).

Self-perceived competence does influence motor behaviour, but the opposite is not always true. Therefore it is not enough for the teacher to improve motor skills and movement competence, it is important too that students are aware of being successful. Exactly that creates the conditions for further development.

Perspective-rich participation in the movement culture requires varied movement situations, tailored to the needs, possibilities, capabilities and interests of the individual students and a close connection to their topical movement environment.

## Continuing participation

Society is continuously changing. So physical education is always facing the problem of preparing students for participating in a movement culture of which we hardly know what it will look like in the future. How do we cope with that problem? How do we teach them to go along with the rapidly changing knowledge, skills and value-systems? How do we make young people ready for managing changes?

Physical education has to offer the students a broad and versatile repertoire of transferable motor skills, movement competencies and knowledge as to movement situations. They have to learn basic principles, applicable to corresponding movement situations. Physical education has to prepare students for a mature and critical participation too; they have to be taught competence in a certain kind of independent thinking and expression of their own opinions. Finally students should learn to learn.

Enjoying movement is a prerequisite for continuing participation. The motivation for people to do sports is particularly influenced by the intrinsic value of sport; they simply like doing sport. But for enjoying it in the longer term, it is necessary to experience that one can really do it (Bräutigam, 1994). For continuing participation, the experience should not be superficial; instead real competency and participation in movement situations is required.

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Dr. Harry Stegeman  
 W.J.H. Mulier Instituut  
 Postbus 188  
 NL-5201 AD 's-Hertogenbosch  
 Tel: (0031) 73 612 64 01  
 Fax: (0031) 73 612 64 13  
[h.stegeman@mulierinstituut.nl](mailto:h.stegeman@mulierinstituut.nl)

## Conclusion and summary

### What did the speakers tell us - Plans and challenges for EUPEA

*Dr. Chris Laws*

*University College Chichester, U.K.*

You have listened to 13 speakers during the day and it is virtually impossible to do justice to them and summarise them in a short space of time.

The speakers though have given pointers for EUPEA and all of us working in physical education to consider for the future.

There are 4 areas to me that seem to have re-occurred during the presentations

- Definition of Quality Physical Education
- Delivery of Quality Physical Education Programmes
- Dissemination of Good Practice
- Comparative studies of children's experiences of physical education and school sport and the meanings they attach to these experiences

#### **Defining Quality Physical Education**

Kevin Gilliver, Paul De Knop and his colleagues all challenged us to define quality and described development both in England and Belgium. Paul De Knop reported that as a result of their survey 'school physical education does not yet reach a satisfying social quality standard'. Similarly Kevin Gilliver told us of new initiatives but these must lead to the raising of standards and quality - the implications are immense and challenging.

#### **What is Quality?**

- Should EUPEA continue to lobby for a minimum amount of time for all children in school of physical education?
- Should EUPEA - although recognising individual differences between countries - define what it is that children should actually do in physical education? Do we need to be far more specific as to what constitutes a balanced physical education programme for all children?
- Should EUPEA define, far more specifically, issues of equity - if all schools across Europe are to provide quality experiences inclusion policies and strategies for all need to be considered and implemented?
- Should EUPEA define what it actually means to be physically educated, what are the Knowledge, Skills and Understanding we expect children to acquire as a result of engaging in physical education?

#### **Delivery of Quality Programmes**

- Good teachers do make a difference but what are the competencies expected of our teachers of physical education?
- Should EUPEA define what should count as Subject Knowledge, Pedagogical Knowledge, Contextual Knowledge in the training of teachers?
- Should EUPEA lobby for the right for in-service for all physical education teachers across Europe? The issue of planned continuing professional development for all teachers is an area for consideration across all European countries as Kristine De Martelaer and her colleagues have told us.
- Should EUPEA define minimum resources for the delivery of Physical Education programmes?
- We heard of some exciting developments from Michel Fouquet in France, Helena Kronberg in Sweden and Hugo Van der Poel in The Netherlands, but we do need further work on the best use of resources to support our quality programmes?

## **Dissemination of Good Practice**

To me this was one of the most exciting areas of the symposium and we heard of some very good examples directly from teachers who are implementing these programmes.

Should EUPEA consider ways of disseminating and celebrating the good practice that we know exists in physical education?

## **Pupils' Experiences**

We need to consider that adopting of a pupil's eye view which can provide us with a useful mirror of the way things eventually manifest themselves and set of criteria against which physical education can be tested.

A number of our speakers have implicitly challenged us to understand the outcomes of physical education from a child's point of view. This may well throw up all sorts of challenges, particularly if we discover a mismatch between what we think is happening and what actually happens to children. EUPEA could well lead the way on comparative studies of children's experiences in physical education.

There is an interesting quote in Hardman's (2000) work from the Minister of Education for Manitoba in Canada (Janzen 1998). He claimed that despite massive investment in PE...

the attitudes of society had not been positively affected by their physical education experience within the school system. (p8)

Whatever perspective we take of the state of physical education in Europe, it is clear that an understanding of the frameworks that children use to interpret the subject is crucial to teachers' ability to implement an effective quality programme. Most significant would seem to be the need to provide a curriculum that pupils interpret as relevant to them and their lives, one, which they can carry forward for the rest of their lives.

It is clear that there is a role for EUPEA and all our Associations in providing quality experiences for all children - we must take action as a result of this symposium, we do not want to be discussing the same topics in years to come, we must have ways of showing we have moved on.

The symposium has provided challenges for us all.

Dr. Chris Laws  
Vice-President EUPEA  
University College Chichester  
Head, School of Physical Education  
College Lane  
Chichester PO19 6PE  
Ph: 01243 816330  
[c.laws@ucc.ac.uk](mailto:c.laws@ucc.ac.uk)

## Code of Ethics and Practice Guide for Physical Education

*The Code of Ethics and Good Practice Guide for Physical Education was published by EUPEA in May 2002. The text is re-printed here in its entirety with permission of EUPEA. For a copy of the official booklet (ISBN: 90-70870-47-9) please contact the EUPEA secretariat at the contact details at the end of this article.*

### Foreword

*The European Physical Education Association (EUPEA) is an umbrella organisation of professional physical education (PE) associations in Europe. It was founded in Brussels in 1991 in order to promote more and better PE all over Europe. Its first official statement, the Declaration of Madrid, was published in the same year and pointed out the need to promote and defend physical education as a core subject in the school curriculum - 'No education without physical education.' EUPEA promotes and defends PE by collaborating with other professional associations involved in PE and with appropriate governmental and non-governmental organisations. The Association considers Physical Education as one of the basic tasks of the school system, because the development of movement competence and the promotion of life-long sport and physical activity participation are of vital interest in our modern society.*

*Since its foundation in 1991 EUPEA has intervened on behalf of a number of associations in different countries to protect the place of the subject in the curriculum or to prevent reductions in time allocation. However, in recent years it has become apparent that there are a number of important issues in PE for which clarification and guidance are necessary in the interests of maintaining high quality and ensuring good practice. Significant amongst these was the need for an agreed code of behaviour when working with pupils in PE.*

*Dr. Chris Laws (University College Chichester/Physical Education Association of the UK) initiated and led the development of this Code of Ethics and Good Practice on behalf of EUPEA, assisted by the representatives of the member associations. It is offered as a contribution to the development and maintenance of high quality PE programmes by providing guidance to ensure that children are able to participate in all forms of school physical education and can do so safely with their best interests being of paramount importance.*

*Dr. Richard Fisher Hon. President of EUPEA  
Rose Marie Repond President of EUPEA*

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*Austria, Belgium, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Lithuania, Luxembourg, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, The Netherlands, United Kingdom*

### Introduction

This Code aims to provide teachers, administrators and all involved in physical education and school sport with guidelines and standards to be used when dealing with school children in physical education. The Code is designed to cover physical education in schools involving children and young people and is underpinned by the following principles:

- Physical Education (PE) in schools for children and young people can contribute positively to the development of children. It is a vehicle for physical, mental, personal, social, spiritual and emotional development. Such development is enhanced if an informed, thinking, caring and enlightened teacher or helper operating within an accepted ethical framework of good practice guides the individual.
- This Code adopts the principles contained in the Council of Europe's Code of Sports Ethics.

- The Code is a framework within which to work. It is a series of guidelines rather than a set of instructions and should be used in conjunction with other comparable publications from education authorities, recognised national governing bodies of sport and national governments.

Children, young people and their families should have every confidence that they are treated with respect and understanding when they take part in physical education and school sport. It is essential that this document is representative of a process of continual improvement in the area of ethics and good practice within school physical education. It is for all adults to promote good practice and procedures, whilst being ever vigilant and aware of their responsibilities towards the children in their care. The Code is divided into three sections:

A: Key Principles in Physical Education

B: Good Practice in Physical Education

C: Potential Stress, Burn-out and Abuse in Physical Education

### **Terms used in this code:**

Teacher of physical education: includes all who teach physical education but must have qualified teacher status.

Physical Education curriculum: this is a planned course of study offered during the school day and implemented in accordance with the relevant guidelines for the respective country.

## **Section A - Key Principles in Physical Education**

The organisation of physical education in schools should be guided by a set of key principles, which provide the foundation for all practice.

### **1. Needs of the child and benefits of physical education**

All children's physical education and related contexts must be guided by what is best for them. This means that teachers and other adults must understand the emotional, social, physical and personal needs of young people. The stages of development of children should guide the types of activity provided and teachers should have the ability to respond positively to the individual needs of each child. Teachers should have a sound understanding of the importance of enhancing self-esteem for young people and should seek to develop positive and healthy relationships with and between the children in their care.

Children have a lot to gain from physical education. Their natural sense of fun and spontaneity can blossom in positive physical activity environments, which promote progress in a child centred way. School physical education provides an excellent medium in which children can learn new skills, become more confident and maximise their own unique potential. These benefits will accrue through a positive and progressive approach to the involvement of children in physical activity, which places the needs of the child first and winning and competition second. A child centred and progressive approach to children's physical education and activity will return many benefits in terms of their future health and well being as adults.

### **2. Integrity in relationships**

Teachers and other adults interacting with children in physical education and physical activity should do so with integrity and respect for the child. There is a danger that activity contexts can be used to exploit or undermine children. All adult actions should be guided by what is best for the child in the context of quality, open working relationships. Verbal, physical, emotional or sexual abuses of any kind are unacceptable within physical education.

Teacher - child relationships in physical education should be:

- Open, positive and encouraging.
- Defined by an ethical code of conduct relating to interaction, touching and bullying (known as 'mobbing' in some countries).
- Carried out in a context where children are protected and their rights promoted.
- Free from verbal, physical, emotional or sexual abuse
- Respectful of the needs and developmental stage of the child

- Aimed at the promotion of enjoyment and individual progress
- Governed by a code of ethics and good practice for the activity taking place.

### 3. Child to child relationships

Interaction between children should be conducted in a spirit of mutual respect and fair play. Adults who create an environment in which quality and open relationships are modelled and valued and where the integrity of each individual is respected can promote such interaction.

### 4. Fair play

The context for children's physical education and physical activity should be one where there is an atmosphere of fair play. The European Sports Charter and Code of Ethics (1993), defines fair play as:

*Much more than playing within the rules. It incorporates the concepts of friendship, respect for others and always playing within the right spirit. Fair play is defined as a way of thinking, not just a way of behaving. It incorporates issues concerned with the elimination of cheating, gamesmanship, doping, violence (both physical and verbal) exploitation, unequal opportunities excessive commercialisation and corruption.*

### 5. Quality atmosphere and ethos

Children's physical education and physical activity should be conducted in a safe, positive and encouraging atmosphere. A child centred ethos will help to ensure that competition and specialisation are kept in their appropriate place. Too often competitive demands are placed on children too early in physical education, which can result in excessive levels of pressure and may persuade them not to follow a future active, healthy lifestyle.

### 6. Equality

All children should be treated in an equitable and fair manner regardless of age, ability, sex, religion, social and ethnic background or political persuasion. Children with disability should be involved in physical activities in an integrated way, thus allowing them to participate to their potential alongside other children.

### 7. The necessity for education and training

Given the wide and diverse range of physical activities that can comprise a school physical education programme it is essential that suitable and appropriate teacher education programmes are available. Such education programmes should be specific, formally recognised teaching qualifications. Physical education exposes children to new challenges, some of which occur in environments with certain risks. Teachers who take responsibility for children in physical education have a duty to ensure that they are competent to provide safe and rewarding experiences for those in their care. Appropriate training and educational opportunities need to be developed for all teachers and they should seek ways of regularly improving their personal and professional development.

### 8. Self-awareness

Teachers of physical education should have a realistic understanding of their level of competence in relevant practical areas and should confine themselves to those elements for which their training is recognised and formally verifiable.

## Section B - Good Practice in Physical Education

Teachers of physical education should strive to create a positive environment for the children in their care and they have an overall responsibility to take the steps necessary to ensure that positive and healthy experiences are provided. Teachers of physical education should:

- Be competent and qualified
- Be positive, enthusiastic and cheerful
- Reinforce the principles of fair play



- Give feedback in a constructive and encouraging manner
- Encourage an active healthy lifestyle
- Recognise that they themselves are human and will not get it right all the time!

Children should not be treated as mini-adults and their needs should be recognised at all stages. At times the teacher of physical education can be in a unique position of trust and this position must be maintained with integrity at all times. There are a number of principles, which underpin good practice in physical education.

### **1. The preparation and supervision of sessions**

The teacher of physical education should:

- Be well prepared for each lesson.
- Take all reasonable steps to establish a safe working environment.
- Plan activities that are appropriate for the age, maturity, experience, ability and expectations of children.

### **2. Behaviour of physical education teachers and personal standards**

The behaviour of teachers of physical education should be informed by a number of key principles.

- Maintain the highest standard of personal conduct and support of the principles of fair play.
- Treat everyone equally regardless of sex, age, ability, ethnic origin, sexuality, religion or political persuasion. In this regard, the teacher should ensure that all are given sufficient opportunities to participate in the activity.
- Be responsible for setting and monitoring the boundaries between a working relationship and friendship with children. This is particularly important when the teacher and children are of the opposite sex and/or when the participant is a young person.
- Realise that certain situations or friendly actions could be misinterpreted by children or by outsiders and could lead to allegations of sexual misconduct or impropriety.
- Encourage children to adhere to the spirit of the rules of the physical activity taking place. Furthermore, the teacher must not encourage or allow participants to violate the rules and should actively seek to discourage such action.
- Never exert undue influence over a child in order to obtain personal benefit or reward.
- Be watchful of all situations, particularly bullying, (can be known as 'mobbing' in some European countries), which may occur:
  - child to child
  - group to child
  - adult to child
  - child to group
- Have enjoyment of the activity as a priority.
- Prohibit swearing or other inappropriate language, signing or behaviour.
- Have an obligation to project an image of health, cleanliness and functional efficiency.
- Ensure where contact between teacher and child is a necessary part of the teaching process no action on their part could be misconstrued and that accepted guidelines on this matter are followed.

### **3. A balanced approach to winning**

A physical education teacher should be primarily concerned with the well being, health and future of the child and only secondarily with winning if the context is a competitive one. The teacher should stress the importance of sincere effort and enjoying the physical activity rather than winning at all costs.

#### **4. The context for the conduct of physical activity**

Physical activity is central to physical education and it is important that teachers establish the right context within which it takes place.

- The activity undertaken should be suitable for the age, experience, ability and expectations of the participants.
- Children with disabilities should be involved in physical activities in an integrated way wherever possible. However, teachers must be aware of and informed regarding the special needs of children with disabilities. Teachers should also be aware that children with special needs might be more vulnerable to abuse.
- Teachers should respond positively to any concerns of children regarding their participation in the activity.
- When working with individuals or small groups of children, teachers should always work in an open and approved environment. Situations where a teacher and an individual child cannot be observed should be avoided.
- Teachers should avoid situations where they are alone with individual children in changing rooms.
- Adult - child ratios should reflect the duration, nature and location of the activities, the ages and characteristics of the young people and any other responsibilities related to the activity. It is the responsibility of the school to determine what are appropriate and approved adult/child ratios and ensure that they are adhered to.

#### **5. Physical activity qualifications**

It is a fundamental principle of EUPEA that teachers of physical education should carry an appropriate level of qualification, both in a general professional sense and, where necessary, in relation to specific areas of activity.

- The teacher should be competent to deliver the activity in which they are engaged. Teachers should adhere to the procedures and regulations of the relevant National Governing Body relating both to the coaching and the coaching qualifications in each activity. Teachers who operate outside of such formal structures are encouraged to hold equivalent qualifications, where they exist.
- All teachers of physical education should have an applied knowledge of First Aid.

#### **6. Discipline and the creation of a positive environment**

- Teachers must understand the disciplinary framework and concepts, which underpin the creation and maintenance of a productive teaching and learning environment.
- With good teaching physical education programmes play a leading role in helping young people to accept responsibilities, to accept others and to accept themselves. Teachers should ensure that all children feel and believe that they all have an equally important contribution to make to the activity.
- Discipline in physical activities should always be positive in focus, providing the structure and rules that allow children to learn to set their own goals and strive for them. As young people progress in physical education they need to learn to become responsible for themselves and, therefore, more independent.
- The main form of discipline should be primarily through praise for the following:
  - effort
  - social skills
  - activity skills
- Children must be helped to understand the responsibilities and implications of the freedom to make choices and decisions within physical activity that often involve the difference between playing fairly and unfairly.
- Children should treat others in a respectful manner. Participants should not interfere with, bully (mob) or take unfair advantage of others.
- There should be no place for fighting, over-aggressive or dangerous behaviour in physical activity.
- Children should treat their teachers with dignity and respect, recognising the time and input which such people contribute.
- Rules and expectations should be positively stated and communicated clearly to all involved in any activity.

## 7. Sanctions

Sanctions are an important element in maintaining discipline and teachers should have a clear understanding of where and when particular sanctions are appropriate.

- Sanctions that may be interpreted as being humiliating or improper should not be used.
- Care should be taken not to expose a child intentionally or unintentionally to embarrassment or disparagement by use of sarcastic or flippant remarks about the child, his/her family etc.
- Teachers should never use any form of corporal punishment or physical force on a child.
- Teachers should follow some key guidelines when using sanctions.
- Sanctions should be used in a corrective way designed to help children improve now and in the future. Sanctions should not be used to retaliate or to make the teacher feel better.
- When violations of rules or other misbehaviours occur, sanctions should be applied in an impersonal way.
- Once a good rule has been agreed upon, ensure that children who violate it experience the unpleasant consequences of their misbehaviour. Sanctions should not be waved threateningly over the heads of children; they should be implemented fairly and firmly.
- One clear warning should be given before delivering sanctions.
- Sanctions should be administered in a consistent way.
- If an appropriate action cannot be devised right away, the child should be told that the matter would be dealt with later, at a specified time.
- Once sanctions have been imposed, it is important to make the child feel a valued member of the group again.
- The child should not see sanctions as a rewarding experience for their inappropriate behaviour.
- Children should not be sanctioned for making performance errors when they are participating.
- Physical activity (e.g. running laps or doing push-ups) should not be used as sanctions. To do so only causes the children to resent physical activity, something that they should learn to enjoy throughout their lives.
- Sanctions should be used sparingly. Constant sanctioning and criticism can cause children to turn away from physical activity.
- Sanctions should be fair and in the case of persistent offence should be progressively applied. The following steps are suggested:
  - Statement and agreement of rules
  - Warning if a rule is broken
  - Sanction if the rule is broken a second time (e.g. temporary exclusion from the activity)
  - Individual interview if the rule is broken again in the presence of another adult.
  - Longer term exclusion for continued breaking of rules and involvement of parents/guardians

## 8. Safety

All activities being undertaken should be suitable for the age, experience and ability of participants. Where protective equipment is deemed necessary it should be used.

- Teachers of physical education and other teachers involved in organising sporting activities or teams should have First Aid expertise or direct access to others who have such expertise. They should have a proper First Aid Kit, including gloves for each open wound injury, and sponges to be utilised on a use once and dispose basis.
- Injuries, including minor ones, should be recorded, with a note of the action taken.
- Parents/guardians should be notified of all injuries, which their children incur within a sporting activity.
- All physical activities should be governed by a clear and widely known and understood emergency procedure.
- Equipment and facilities must be appropriate to the maturity of the participants.
- Children should be taught the rules of the game and encouraged to abide by them. Many rules exist for safety.
- Children should have been systematically prepared for the activity being undertaken and made aware of their personal responsibilities in terms of safety including wearing inappropriate clothing and jewellery

## 9. Insurance

- Bearing in mind the potential for accident, schools have a duty to ensure there is adequate insurance cover in place and to give advice on what personal accident cover might be appropriate for both children and teachers.
- Physical education teachers should ensure that there is adequate insurance in place, arranged by themselves or employer to cover all aspects of their teaching

## Section C - Potential Stress, Burn-out and Abuse in Physical Education

Physical education can be a very positive experience for children and young people but teachers should recognise situations that may have adverse affects for young people.

### 1. Stress and Burn-out

Stress is often associated with a mismatch between the demands of a task or situation and the individual's ability to respond. As far as children and young people are concerned it can be a stimulus to achieve if it is structured carefully and used sparingly, but it can also be a very damaging to a child if it is excessive or occurs too frequently. Burn-out may be defined as a process resulting from an activity that was once a source of fun and personal satisfaction but has become associated with progressive physical and psychological distress. Burn-out is a loss of energy and enthusiasm for physical activity and is characterised by anxiety and stress. The child no longer has fun and becomes overwhelmed by the demands of the activity.

Psychological stress within the physical education context can be caused by a number of things:

- Pressure to excel/win (if this exceeds the capacity or wishes of the child) or other age-inappropriate expectations,
- Excessive criticism of a child or team,
- Inappropriate use of sanctions/discipline, rejection,
- Displaying dislike of a child or disapproval of skill/performance ability,
- Failure to provide support, encouragement and approval for effort and achievement,
- Failure to involve a child/children as fully as possible in the activity,
- The use of coarse, inappropriate language.

Within a physical education context the following practices are injurious to children's health and welfare and should be avoided.

- Stretching a child to perform at a level which is beyond their capacity related to age or maturation level.
- Making demands on children that lead to burn-out.
- Knowingly permitting an injured child to participate in a physical activity.
- Failure to take into account standard safety precautions or to take adequate precautions to protect a child from environmental hazards.
- Failure to take account of ailments or relevant weaknesses of a child.

### 2. Abuse

Parents/guardians, carers (i.e. persons who while not parents/guardians have actual responsibility for a child) or others can harm children either by direct acts, or by a failure to provide proper care, or both. Such acts include physical injuries, severe neglect, and sexual or emotional abuse.

#### 2.1 Children's Rights

Children have a right to be protected from abuse. Within school physical activity the following children's rights should be upheld:

- To be safe
- To feel safe
- To protect their own bodies

- To refuse inappropriate touches
- To get help against bullies
- To not keep secrets
- To say no
- To tell
- To be believed

## **2.2 Protection from abuse**

The protection of children from any form of abuse must be a priority for all those involved in children's physical activity. If children are at risk of harm it is the duty of those in a position of responsibility to take immediate steps to remove the risk and to ensure that all necessary procedures are undertaken in accordance with statutory guidelines. The detection and prevention of child abuse depends on the collaborative effort of everyone concerned. Central to the success of this effort are the following:

- Knowledge of the behavioural and physical indicators of various forms of abuse.
- Knowledge of the appropriate response and action to be taken where abuse is revealed or suspected.
- Vigilance, and avoidance of all situations conducive to risk.
- Open, trusting and co-operative relationships within the school, and with parents/guardians and others concerned with children's progress or welfare.

## **2.3 Sources of abuse**

The source of abuse of a child participating in physical activity may be within or outside of the school, and could include one or more of the following:

- A teacher
- Another child/adolescent
- Person providing transport or other assistance
- Family member/carer
- Person outside of home

## **2.4 Categories of abuse**

Child abuse is generally divided into four categories[1], which have been outlined by as follows:

### *Physical abuse:*

Physical injury to a child, including poisoning, where it is known or suspected that the injury was deliberately inflicted.

### *Child neglect:*

The persistent or severe neglect of a child, whether wilful or unintentional, which results in serious psychological impairment of the child's health, development or welfare.

### *Emotional abuse:*

The adverse effect on the behaviour and emotional development of a child caused by persistent or severe emotional ill treatment or rejection, or exposure to ongoing domestic violence.

### *Sexual abuse:*

The use of children by others for sexual gratification. This can take many forms and includes rape and other sexual assaults, allowing children to view sexual acts or be exposed to, or involved in, pornography, exhibitionism and other perverse activities.

## **2.5 Signs of Abuse**

There are certain signs of abuse, which are apparent both in the child's behaviour and appearance that should alert teachers to the possibility of abuse. Some of these are common to all types of abuse. Others are more specific to certain forms of abuse. Knowing the indicators of abuse is essential for recognising a potential or real problem. However, any one sign in itself can occur in the absence of abuse, and conversely, a child who is being abused may show none of the more typical signs, or show conflicting, confusing signs. Such cases make it difficult to decide which course of action to take, but all concerns or suspicions should be acted

upon according to established guidelines. It is important to note, however, that indicators can occur in other situations where abuse has not been a factor and that the following list is not exhaustive.

Behavioural signs of Abuse:

- Acting out aggressive behaviour
- Lack of trust
- Excessively complain
- Withdrawal behaviour
- Lack of friends
- Excessive attachment to adults
- Unusual reluctance to join in normal activities involving the removal of clothing
- Reluctance to go home or to interact with a particular individual or group
- Depressed appearance
- Sudden drop in performance
- Change in attendance pattern
- Change in characteristic way of behaving

Signs of Physical Abuse

- Unexplained bruising in soft tissue areas
- Repeated injury
- Black eye/s
- Injuries to the mouth
- Torn or blood-stained clothing
- Burns or scalds
- Bites
- Fractures
- Marks from implements
- Inconsistent stories/excuses relating to injuries

Signs of Child neglect

- Nutritional deprivation
- Persistently dirty/smelly clothing or appearance
- Inadequate clothing
- Non-healing injuries

Signs of Psychological/Emotional Abuse

Emotional abuse occurs when an individual suffers harm as a result of being intimidated, emotionally exploited, exposed to constant denigration, ridicule, rejection or verbal attack for their supposed shortcomings. This is the least recognised form of harm done to children, yet the long-term psychological consequences may be more traumatic than in the case of simple physical injury.

Signs of Child Sexual Abuse

- Hints about sexual activity/abuse
- Age-inappropriate understanding of sexual behaviour
- Inappropriate seductive behaviour
- Inappropriate sexual play with other children
- Preoccupation with touching sexual parts of the body
- Blood stained underclothing

- Reluctance to remove clothing
- Excessive fear or dislike of adults/older children

## Confidentiality

Confidentiality must be maintained in respect of all issues and people involved in concerns about abuse. A guarantee cannot be given to a person providing information relating to concerns about or knowledge of abuse that the information received will be kept absolutely confidential. However, all information should be treated in a careful and sensitive manner and should be discussed only with those who need to know.

## Conclusion

This document outlines some of the key issues that need to be addressed if physical education in schools is to be taught to the highest standards and respect for the needs and dignity of children. Responsibility lies with professional associations and education agencies to act on recommendations here and to work co-operatively in helping to make physical education in schools a happy and rewarding experience for all children.

European Physical Education Association:

Secretariat,

BVLO, Waterkluiskaai, 16,

B-9040 Sint Amandsberg/Gent, Belgium.

Telephone: (+) 32.9.218.91.20

Fax: (+) 32.9.229.31.20

[info@bvlo.be](mailto:info@bvlo.be)

<http://www.bvlo.be/eupea/>

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## Research Methodology for Sport Science

*Prof. Dr. h.c. H. Haag, M.S.,  
Christian-Albrechts-Universität Kiel, Germany*



### Introduction

For ICSSPE, as an umbrella organisation, and for the various disciplines of sport science, the issue of research methodology (RM) is a topic of central concern. RM is an issue in every theory and theme field of sport science. Of course there are specific aspects as related to the individual theory and theme fields. However, there is a common foundation which is valid for science in general but also for sport science specifically.

The issue of RM is also closely linked to the questions of function, body of knowledge and theory-practice relationships as basic issues in order to understand the nature of sport science as an academic field. To lay a common base of understanding the terms method, methods and methodology - as related to science - are described in the "Dictionary of Sport Science" (Beyer, 1987) in the following way:

### Method

"In science in general: procedures or activities for gaining an understanding through observation, experiment, test, interview, analysis, statistics, discussion, or reflection. When knowledge and understanding is purposely aimed at through the application of Method, one can also use the term research methods. In a specific way, the repertoire of method. can be differentiated into analytic (inductive), deductive, descriptive, dialectic, experimental, genetic, hermeneutic, progressive (deductive), regressive (inductive), speculative, synthetic (deductive) method. Distinctions according to scientific disciplines are, for example, natural scientific, and historical method. or method. in the humanities. If only one method. is considered valid in gaining knowledge, there is a monistic point of view; if more than one method is possible or desirable within a scientific field there is a pluralistic view. The application of specific research methods presupposes the use of certain tools and research techniques such as sample survey, case study, formulation of hypotheses, setting of the protocol, content analysis, selection of test batteries, research design, statistical evaluation, or symbolic language" (pp. 404-405).

### Methods

"The study and theory of methods and their applications. Methods are systematic and deliberate procedures or ways of gaining knowledge (Method; Methodology), of transmitting knowledge, abilities, and skills (education). In this respect, the use and application of method depend upon the nature of the respective knowledge and transmission of knowledge" (p. 406).

### Methodology

"Theory of the methods and procedures of scientific inquiry and understanding. From a general scientific and theoretical point of view, methodology. is a branch of logic or logistic. The task of methodology. is to identify, classify, explain and substantiate the forms of thought, means of analysis, methods of inquiry, concepts, principles, categories, and classification systems which have stood the test of time and have general application in the scientific domain. To this extent, methodology. provides both the analysis and critique of the sciences and the scientific method. Note: In particular, methodology is also considered the theory of research techniques. As a scientific, theoretical analysis of the scientific effort, methodology is concerned with the development of simple concepts, the explication of complex notions, the nature of the variables to be analysed, the possibility of operationalising concepts, the construction of explanatory schemata, the logical analysis of existing theories, the strategies of constructing and testing theories, the formulation of hypotheses, the planning of research, and the systematisation and formalisation of existing knowledge. Every science can form a special methodology, based on the concept of general methodology, as a special case for those methods of inquiry and techniques of research which it employs. This is also the case for sport science" (pp. 408-409).



## **Nature and Function of Sport Science**

An ad-hoc working group of ICSSPE with the name "Research Methodology in Sport Science" developed a position statement - accepted by ICSSPE - which also relates to research methodology. The major aspects are (ICSSPE, 1994):

### **1. Question: What is the Function of Sport Science?**

#### **I. Nature of Sport Science**

1. The purpose of sport science as a specific academic discipline is to focus on human physical activities like sports, games, play and exercise in their individual social context.
2. The nature of sport science is to involve an extensive variety of theoretical approaches and specific methods which represent qualitative and quantitative approaches, strategies and techniques of research.
3. The nature of sport science is to accumulate a body of knowledge and to propose guidelines to help spectators on sport, play, game and exercise settings (SPGE).

#### **II. Functions of Sport Science**

The function of sport science is to create, develop, refine, and confirm a body of knowledge that focuses upon the following items:

1. Identify and describe the basic structure and essential characteristics of SPGE.
2. Develop a description and understanding of the historical-social context of SPGE, as well as of the meaning and significance of SPGE for the individual and for society.
3. Develop and describe proper standards of conduct within and surrounding SPGE.
4. Develop concepts and methods of instruction and education. As well as exercise and training techniques for individuals participating in SPGE.

#### **III. Future Orientations and Directions**

Ideally, sport science will be advanced as well as contribute more significantly when:

1. specialists within a parent discipline co-operate and continuously produce a substantial and meaningful body of knowledge
2. specialists among a sport science specialisation co-operate and continuously produce a substantial and meaningful body of knowledge
3. each sport science specialisation interacts with its parent discipline as well as with related specialisations in order to further the respective bodies of knowledge.
4. sport science specialists interact with those who deliver professional services to various constituencies in order to improve these services and benefits, and to receive feedback on the usefulness of the research, as well as new ideas for research.

### **2. Question: What is the Body of Knowledge of Sport Science?**

It is possible to identify three distinct components of the body of knowledge of sport science: the core or central areas of a specialisation, a group of closely-related disciplines, and a variety of interdisciplinary thematic concerns. Each of these three components is outlined in what follows:

#### **I. The Sport Science Specialisations**

- Sport biomchanics
- Sport philosophy
- Sport history
- Sport physiology
- Sport medicine
- Sport psychology
- Sport pedagogy
- Sport sociology

## **II. Examples of the Academic Disciplines to which Sport Science and its Specialisations Can Establish and Have Established Close Relationships:**

- Anatomy
- Anthropology
- Architecture
- Chemistry
- Communication science
- Environmental science
- Information science
- Law
- Mathematics
- Management
- Nutrition
- Performing arts
- Politics

It is important to realise that there are many other academic disciplines and specialisations within sport science, indicating its broadening impact and growth.

## **III. There is a Third Way of Describing the Body of Knowledge of Sport Science; Namely, by Using a Thematic Approach:**

There is a wide variety of themes related to sport science. The specific character of the thematic approach is that research results are merged by integrating various specialisations of sport science, in relation to certain themes.

There are two types of such themes: those that have a close relationship to the core of sport sciences, and those which have a more general character.

Some primary examples are:

- Study of Coaching
- Study of Movement
- Study of Health
- Study of Play

## **3. Question: What is the Research Methodology of Sport Science?**

The research methodology of sport science - which includes conceptualisation, research design, data collection, data analysis, and interpretation - is determined by the questions raised, issues to be resolved, and intended implications for, or applications to, participants in sport, as well as other people and circumstances surrounding sport settings. The logic of the research process should be continuously evaluated. Sport does not necessarily require unique research methodology. However, intelligent approaches to, and in, sport science need to be made and will be directed by the substance of the content of interest and the problems being addressed.

It is important that researchers representing different specialisations with unique research problems to be investigated be very familiar with the most appropriate, effective, and innovative methodology. Well known and traditional methodologies already incorporated in particular specialisations (e.g. socio-cultural) may be innovatively used in other specialisations in sport science (e.g. bio-medical). There is a wide assortment of available approaches with which it is necessary to be familiar. When making decisions in selection, good judgement must be used.

Furthermore, the transfer of sport science knowledge to sport, game, and exercise settings is extremely important. From the relevant issues determined studies conducted, and conclusions reached, the process of transmitting this knowledge to the professional community, and the public at large, should be effective and ongoing. As well, the evaluation of the effectiveness of this process and subsequent outcomes of this process should be continuously monitored.

It must be continuously emphasised that ethical practice should be followed throughout the entire research process, as well as during all application phases utilising the result.

## **4. Question: What is the Theory-Practice Relationship in Sport Science?**

Obviously, research can be primarily conceptually-driven (fundamental approaches), with the intent of contributing to the body of knowledge for understanding questions and issues related to sport, play, games,

and exercises (SPGE). Or, the immediate concern might be action-centred, to deal with practical problems and to provide scientific guidance as to how to resolve them. Most research associated with sport science probably involves concerns for both theory and application. Usually problems and issues arising, and being identified within specific SPGE experiences, lead to scientific research, which attempts to contribute to the body of knowledge and, consequently, the implications are that most research in the area would ultimately be application-centred.

There is the possibility of practice-guided theory and theory-guided practice. However, this two-fold relationship has to be seen in a continuum since the degree of this theory-practice relationship varies from one research project to another.

If one considers that research projects can be either self-generated or solicited from others, it is apparent that the reciprocal relationship between theory and practice or practice and theory is often more obvious with solicited research than with research which is self-generated. That is, solicited research is more often concerned with the attainment of practical or applied results than with the generation of new theory.

For the sound development of the theory-practice relationship in sport science, it is also necessary that institutions of higher learning, as well as private sector research units, emphasise, to a greater extent than is currently the case, that the application of research results to practice is an important part of the complete research process and one, therefore, that should not be overlooked.

It should perhaps also be mentioned, once again, that all pertinent ethical concerns and issues should be carefully considered in research of all types.

Last, but not least can we find in the introduction of the new and revised edition of the ICSSPE Directory of Sport Science (formally known as the Vade Mecum) an indication and relationship to the construct of research methodology which is part of the presentation of each theory field and theme field in the following six parts:

**I Historical Development**

**II Function**

**III Body of Knowledge**

**VI Research Methodology**

**V Theory-Practice Relationship**

**VI Future Perspectives**

### **Examples for Text Books in Research Methodology as Related to Sport Science**

This survey relates only to publications in the English language. It can be assumed that literature published in English has the largest representation all over the world. The following criteria were used for the presentation of the text books dealing with issues of RM:

- (a) A short statement taken out of the textbooks as well as the content table (sometimes shortened) is included
- (b) A comparative analysis is given using a matrix for providing a rough overview.

Hubbard, A.W. (1973). Research Methods in Health. Physical Education, and Recreation (3rd Ed.). Washington D.C.: AAHPER.

“The need for a fresh, up-to-date view of research methods in health, physical education, and recreation areas is the principal reason for this third edition of Research Methods. New ideas and approaches in research techniques are constantly being introduced, and it is important for the research worker (whether he is a beginning graduate student or an experienced researcher) to be aware of the latest techniques. This book is intended to continue the tradition of the two previous editions in presenting the newest approaches as reported by leading experts” (Preface).

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### **PART V APPENDICES**

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#### **B. Selected Bibliography: Laboratory Instrumentation**

The American Association for Health, Physical Education, and Researching (AAHPER) published the first Edition of this book in 1949. The second edition followed 1959. Thus it becomes clear that the professional organisation of AAHPER has, since the end of World War II, taken a deep interest in issues of RM. Clarke, D.H. & Clarke, H.H. (1970). Research Processes in Physical Education, Recreation, and Health. Englewood Cliffs: Prentice-Hall.

“Although intended for the beginner investigator, Research Processes in Physical Education, Recreation, and Health should provide some suggestions for experienced researchers. The various research methods are presented in sufficient detail so that they can be applied by the scientist. Selected complete studies are described throughout in order to illustrate the various research processes considered. The content is sufficient to provide a graduate course in research methods; in addition, an adequate coverage of elementary statistics as related to essential research applications is included” (p. iii).

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#### **Chapter 7 Distribution, Central Tendency, Percentiles**

#### **Chapter 8 Measures of Variability**

#### **Chapter 9 The Normal Curve**

#### **Chapter 10 Reliability and Tests of Significance**

#### **Chapter 11 Product-moment Correlation**

### **PART IV LABORATORY RESEARCH**

#### **Chapter 12 Laboratory and Experimental Search**

#### **Chapter 13 Physiology of Exercise**

#### **Chapter 14 Motor Learning**

#### **Chapter 15 Psychological Studies**

#### **Chapter 16 Kinesiological Research**

#### **Chapter 17 Growth and Development**

### **PART V THE RESEARCH REPORT**

#### **Chapter 18 Preparation of the Research Report**

The late H.H. Clarke (Eugene, Oregon, USA) as well as his son D.H. Clarke (College Park, Maryland, USA) can be regarded as prominent researchers in sport science in the 20th century. Therefore the inclusion of this textbook on RM is proving the standard of know-how in realising research in sport science as expressed in this textbook.

Cicciarella, Ch.F. (1997). *Research in Physical Education, Exercise Science, and Sport*. Scottsdale: Gorsuch Scarisbrick.

"The concepts, resources, tools, and ethics of research are widely accepted as fundamentally important for graduate level preparation of professionals in exercise science, physical education, coaching, sport management, and related fields of endeavour. Additionally, there is increasing recognition of a need for exposure to the skills required for intelligent consumption for research in undergraduate training. At the same time there is a trend toward a broader view of what constitutes scholarship, one that is inclusive of a wide range of kinds and methods of inquiry. There is a need, therefore, for a textbook in research methods applied to sports-related fields of study that provides skills relevant to both the production and consumption of research, that is cognisant of the many dimensions of sport-related professions, and that recognises a very broad interpretation of what constitutes research. *Research in Physical Education, Exercise Science, and Sport: An Introduction* is written to meet these needs" (p. XV).

## **Contents**

### **1 The Practice of Research**

### **2 Completing the Academic Research Requirement**

### **3 The Research Report**

### **4 Libraries and Related Resources**

### **5 Measuring**

### **6 Matters of Design**

### **7 Descriptive Research Methods**

### **8 Experimental Research Concepts**

### **9 Historical Research Methods**

### **10 Exploratory and Qualitative Research Methods**

### **11 Data Presentation**

### **12 Elementary Statistics**

### **13 Relationships among Variables**

## **14 Making Group Comparisons**

## **15 Ethical Issues in Research**

On Page VII -XI there is a very detailed content table available with a huge number of subdivisions. This is the reason why this textbook can almost be used as a dictionary explaining the major terms as related to "Research Methodology for Sport Science".

Baumgartner, T.A. & Strong, C.H. (1998). *Conducting and Reading Research in Health and Human Performance* (2nd Ed.). Boston: WCB/McGraw-Hill.

"This book was developed based on the methods its authors have used to teach the master's-level introduction to research course for many years. It is assumed that students come to this course with varied backgrounds in areas related to health and human performance, such as dance, exercise science, health, kinesiology, physical education, recreation, and sports management. The two major objectives of our courses are to teach the student how to conduct their own research and how to read with understanding the research that others have done. The book is comprehensive yet practical and understandable. Many examples of the application of various research methods and techniques are presented in an attempt to increase the students' grasp of the research process" (p. xiii).

### **PART I - THE RESEARCH PROCESS**

- 1 The Nature and Purpose of Research**
- 2 The Research Problem**
- 3 Selected Elements of the Research Process**
- 4 Selection of Research Subjects: Sampling Procedures**

### **PART II - TYPES OF RESEARCH**

- 5 Experimental Research**
- 6 Descriptive Research**
- 7 Historical Research**
- 8 Creative Activities**
- 9 Qualitative Research**

### **PART III - DATA ANALYSIS**

- 10 Descriptive Data Analysis**
- 11 Inferential Data Analysis**

### **PART IV - THE RESEARCH REPORT**

- 12 The Research Report**

The book has a dual function. On one side it is supposed to help students to read and consume research in a proper way. On the other side the book can also serve the students who start to engage in doing research with the aim of writing a master's or doctoral thesis.

Thomas, J.R. & Nelson, J.K. (1996). *Research Methods in Physical Activity* (3rd Ed.). Champaign (Ill.): Human Kinetics.

"We believe this book provides the necessary information for both the consumer and the producer of research. Although no amount of knowledge about the tools of research can replace expertise in the content area, it is unlikely that good scholars in the study of physical activity can function apart from the effective use of research tools. Researchers, teachers, technicians, counsellors, and coaches need to understand the research process. If they do not, they are forced to accept information on face value or the recommendation of others. Although neither is necessarily bad, the ability to carefully evaluate and reach a valid conclusion is the mark of a professional" (p. x).

## **PART I Overview of the Research Process**

- Chapter 1 Introduction to Research in Physical Activity**
- Chapter 2 Developing the Problem and Using the Literature**
- Chapter 3 Presenting the Problem**
- Chapter 4 Formulating the Method**
- Chapter 5 Ethical Issues in Research and Scholarship**

## **PART II Statistical and Measurement Concepts in Research**

- Chapter 6 Becoming Acquainted With Statistical Concepts**
- Chapter 7 Relationships Among Variables**
- Chapter 8 Differences Among Groups**
- Chapter 9 Understanding Multivariate Techniques**
- Chapter 10 Nonparametric Techniques**
- Chapter 11 Measuring Research Variables**

## **PART III Types of Research**

- Chapter 12 Historical Research in Physical Activity**
- Chapter 13 Philosophic Research in Physical Activity**
- Chapter 14 Research Synthesis (Meta-Analysis)**
- Chapter 15 Descriptive Research**
- Chapter 16 Experimental and Quasi-Experimental Research**
- Chapter 17 Qualitative Research**

## **PART IV Writing the Research Report**

- Chapter 18 The Research Proposal**
- Chapter 19 Results and Discussion**
- Chapter 20 Ways of Reporting Research**

This textbook so far is one of the most used books in regard to research methodology for sport science. The book has had several new editions, despite the fact that it is predominantly geared towards empirical research in sport science (physical activity).

Haag, H. (in cooperation with Borms, J., Duquet, W., Ghent, G., Holzweg, M., Kluka, D., Lament-Mills, A., Love, P., Tenenbaum, G., Twisk, J.) (in print). Research Methodology for Sport and Exercise Sciences. A Multi-Method Approach for Study and Research. Sage: London.

With this book a holistic concept of research methodology is presented. Thus this textbook is applicable to study and research for all of the continuum all subdisciplines or theory fields of sport and exercise sciences.

## **Contents**

### **PART I Philosophy and Foundations of Science and Research**

- Chapter 1 Concept of Science**
- Chapter 2 Concept of Research**

### **PART II Research Methods**

- Chapter 3 Descriptive Methods**
- Chapter 4 Correlational Methods**
- Chapter 5 Experimental Methods**

### **PART III Research Designs**

- Chapter 6 Library Research, the Web and Information Technology**
- Chapter 7 Planning the Research**

## **PART IV Techniques of Data Collection**

### **Chapter 8 Concepts and Procedures in Collecting Word-Based Data**

### **Chapter 9 Concepts and Procedures in Collecting Number-Based Data**

## **PART V Techniques of Data Analysis**

### **Chapter 10 Non-Numerical Strategies of Data Analysis (Hermeneutics)**

### **Chapter 11 Numerical Strategies of Data Analysis (Statistics)**

## **PART VI Transfer from Research Results (Theory) to Practice**

### **Chapter 12 Theory-Practice and Practice-Theory Relationships**

This book on research methodology for sport and exercise science helps to carry out the various processes of gaining scientific knowledge. The multi-method approach offers a wide variety of insights, ideas, and proposals with regard to realising research in the wide range of sport and exercise sciences. Only if the available methods are known, the researcher is able to choose the appropriate research approach for a given research question. This secures that the issue, problem and question at hand is the starting point in the research process.

**Below is a brief description on the direction of each section within the book:**

### **I Philosophy and Foundations of Science and Research**

An important first part of research methodology is dealing with the concept of science and research. Both structures are discussed and analysed in order to provide a solid theoretical framework for engaging in research. The actual research process gains considerably if it is based and grounded in a thorough theoretical background. Therefore the engagement and work related to this first unit is not in vain or wasted time. On the contrary, it guarantees an adequate realisation of the research process. Furthermore, it seems obvious that in an age of scientific advancement the 'Social-Ethical Perspective of Science' has to be discussed.

### **II Research Methods**

This part introduces the overall concept related to research methods: Descriptive, correlational, and experimental. The Term "method" is reserved in this context for this very basic issue within the research process. Very often one can find rather confusing terminology defining tools such as questionnaire, test, and experiment as a "method". "Method" is conceptualised here in a holistic perspective where theory and methodology merge together. In summary, all three research methods - descriptive, correlational, and experimental - are viewed on the same continuum, ranging from descriptive over correlational to experimental.

### **III Research Designs**

After the predominantly theory-oriented beginning of the publication, the section Research Designs has a more practical focus. This coincides with the intention of this book to provide theoretical frameworks and provide pragmatic orientations for carrying out research.

### **IV Techniques of Data Collection**

The steps introduced within the research process are typical for almost every type of research, especially if the concept of research methodology is based on the multi-method approach.

Textbooks on research methodology, that address the collection of word based-data, often marginally treat the topic. In chapter 8, a systematic and intensive analysis of the issue is provided in such a way that the approach for collecting word-based data is compared to the measuring of number-based data, which is presented in chapter 9.

### **V Techniques of Data Analysis**

In analogy to part IV ('Techniques of Data Collection'), part V ('Techniques of Data Analysis') consists two chapters:

- words: non-numerical strategies of data analysis (hermeneutics), and
- numbers: numerical strategies of data analysis (statistics).



## VI Transfer from Research Results (Theory) to Practice

This concluding chapter emphasises the importance of the mutual relations between theory and practice. Research methodology is viewed as a mediator between the two constructs that feed each other so that theories become more comprehensive and practices become sounder.

### Comparative Analysis of the Content of Textbooks Related to Research Methodology for Sport Science

A comparative analysis of the content of the six textbooks is presented below. The six major categories of the book edited by Haag (in print) serves as "tertium comparationis".

**Table 1 Comparative Analysis of the Content of the Textbooks on Research Methodology**

	Hubbard (1973(3rd)	Clarke & Clarke (1970)	Cicciarella (1997)	Thomas & Nelson (1996) (3rd)	Baumgartner & Strong (1998) (2nd)	Haag (in print)
	2	2	2	2	2	2
<b>II Descriptive</b>	3	2	2	3	3	1
<b>Correlational</b>		1		1		1
<b>Experimental</b>	1	6	2	1	1	1
<b>Others</b>			1	1	1	
<b>III</b>	2	2	4	5	3	2
<b>IV</b>	4					2
<b>V Hermeneutics</b>						1
<b>Statistics</b>	1	5	4	6	2	1
<b>VI</b>	2					1
<b>Number of Chapters</b>	15	18	15	19	12	12

This analysis is just a very modest approach to roughly quantify the main topics which are covered in textbooks written for research methodology for sport science. It is obvious, that five textbooks follow about the same concept, besides the one edited by Haag (in print). This latter one is, besides having the typical chapters of books on research methodology, especially characterised by the fact, that it provides separate chapters for the category "Techniques of Data Collection", Hermeneutics as one aspect of "Techniques of Data Analysis" and for category VI "Theory-Practice Relationships". This is also the reason why this concept of research methodology for sport science is a holistic concept, valid for all aspects of sport science.

Herbert Haag  
Christian-Albrechts-Universität Kiel  
Olshausenstrasse 74  
24098 Kiel  
GERMANY  
Ph: +49 31 4318803770  
[sportpaed@email.uni-kiel.de](mailto:sportpaed@email.uni-kiel.de)

## Example for an Issue of Research Methodology for Sport Science - Between-or Within-Subjects Contrasts: Does it Matter?

*Prof. Dr. H. Morris,  
Indiana University, USA*



Contrasting the levels of an independent variable can be accomplished either between-subjects or within-subjects. That is, subjects can be randomly assigned on one of several groups. Subjects in each group are treated to or observed under the single condition that has been assigned to that treatment group. In this situation, the levels of the independent variable are contrasted between subject, as each single subject is exposed to only one treatment condition.

Alternatively, the levels of an independent variable can be contrasted within-subjects by randomly selecting a sample of participants from an identified population and observing all subjects under each level of the treatment (independent variable).

Choosing between these methods of contrast warrants careful consideration, for each approach has advantages and disadvantages. In true experiments it is of utmost importance that the choice be made in view of possible sources of invalidity, which will confound the results.

The within-subjects method of contrast is very attractive, as this procedure is designed to reduce between-subjects sources of variation. Consequently, in most cases, this method offers greater statistical power. Nevertheless, the within-subjects designs can be affected by statistical difficulties when the data do not meet the assumptions of sphericity or additivity. Modern computer programs provide tests of these assumptions but the researcher must be prepared for further analyses should either of these assumptions not be met.

The within-subjects model can also introduce sources of bias that are known as range effects and order effects. A range effect can occur when subjects are tested across various levels of a quantitative independent variable; if present, a range effect results in a bias toward the mean of the range of stimuli or the range of responses that are required. An industrial psychology study by Kennedy and Landesman (1963) confirmed the presence of a range effect in a simple manipulation task; Poulton (1975) has written on the presence of these effects in a variety of experiments.

The order in which the levels of the independent variable are presented to the subjects can cause a carry-over bias; that is, the results of experiencing a previous level of the independent variable can affect the subjects' response on a subsequent level. While counter-balancing is often suggested as a procedure to reduce or eliminate order effects, there is considerable evidence that counter-balancing can introduce an asymmetric transfer effect, a bias that cannot be removed via statistical manipulation (Poulton & Freeman, 1996).

Alternatively, a between-subjects contrast will not introduce either range or order effects; however, this method usually requires a considerably larger number of subjects to achieve the same level of statistical power as the within-subjects approach. Without a careful estimation of the number of subjects required to attain an adequate level of statistical power, the researcher can obtain results that are not statistically significant, thereby raising the probability of making a Type II error.

Various approaches have been developed to compare the methods of contrast, i.e., that allow a researcher to determine if the experimental results are different or if a between-subjects or a within-subjects contrast is used. A method developed by Erlebacher (1972) provides an efficient albeit complex process to test effects of these models on the data collected in empirical studies.

When examining the literature on a specific topic, if it is found that one cluster of studies render significant results while another does not, consider the possibility that the method of contrasting the levels of the independent variable might be a confounding variable. Examine whether some of the studies used a between-subjects approach while others used a within-subjects contrast. Then, consider the possibility of developing a study that allows a comparison of the method of contrast of the levels of the independent variable using Erlebacher's (1972) technique. Perhaps such an experiment should be one of the initial studies

in all lines of inquiry. technique. Perhaps such an experiment should be one of the initial studies in all lines of inquiry.

Harold Morris  
Department of Kinesiology  
Indiana University  
1025 E. 7th Street  
Bloomington, IN 47405  
USA  
[morris@indiana.edu](mailto:morris@indiana.edu)



## Inclusive Education

*The following is a summary of an article by Christoph Lienert, Claudine Sherrill and Bettye Myers that was published in Adapted Physical Activity Quarterly, 2001, 18(1), 1-17.*



The question of the extent to which and how children and youth with disabilities should be educated together with their peers without disabilities has been and likely will continue to be a social, educational, and political issue disputed in economically advanced Western countries.

In many countries, the trend toward increased integration of children with and without disabilities can be observed.

Teachers, besides the students themselves, are the ones most Saffected by changes such as those required by integration because teachers are the link between society's and parents' expectations for education provided by the state and local school districts and what students actually learn in school. Consequently, teachers and their concerns play an essential role in operationalizing changes involved in educational reform.

The purpose of the investigation was to (a) identify the concerns of physical education teachers about including students with disabilities in regular physical education classes, (b) explore personal and contextual variables affecting these concerns and how teachers cope with them, and (c) compare these concerns and variables across two cultures with different educational systems and different approaches toward integrative education.

The Concerns-Based Adoption Model (CBAM) of Hall, Wallace, and Dossett (1973) provided the theoretical framework for the present study. The model was developed in response to the frequently observed failure of educational innovations. The introduction of an innovation in educational settings "often results in major role changes for teachers and administrators; changes in role often require new professional and interpersonal skills as well as personal value changes" (Hall et al., 1973, p. 2).

Hall et al. (1973) posited that individuals confronted with innovation (e.g. integrative physical education) pass through seven stages of concern and presented a Concerns Based Adoption Model (CBAM) that administrators should follow when assessing concerns of individual teachers. According to the CBAM, change strategies should be planned in relation to specific teacher concerns. Brief definitions of the seven stages of concern posited by Hall et a. (1973) appear in Table 1.

**Table 1:** Seven Stages of Concerns Posited by Hall et al. (1973)

1. **Awareness:** little concern about or involvement with the innovation.
2. **Informational:** general interest in the innovation but little concern about the consequences of the innovation for oneself.
3. **Personal:** concerns about (a) the demands of the innovation, (b) perceived competence to meet these demands, and (c) the individual's changing role, position, and status in relation to the innovation. Uncertainty and worry about the unknown dominates in this stage.
4. **Management:** concerns about how the innovation can be implemented most efficiently; the emphasis is on issues related to organizing, managing, scheduling, and time demands.
5. **Consequence:** concerns about the impact of the innovation on students; the focus is on student outcomes and how the innovation can be changed to increase student outcomes.
6. **Collaboration:** concerns about coordination and cooperation with others to make the innovation more effective.
7. **Refocusing:** concerns related to ways the innovation can be changed to make it more powerful.

*Note. Wording of items has been paraphrased.*

## Method

Participants were 30 elementary school regular physical education teachers in Berlin, Germany (7 males and 9 females) and the Dallas-Fort Worth (DFW) area, USA (2 males and 12 females). The research method was qualitative. Data were collected by in-depth interviews and observations of school settings and analyzed using grounded theory procedures. Although data were analyzed inductively in many ways, it was decided that presentation of findings under the CBAM stages of concern was the easiest, most efficient way to make cross-cultural comparisons.

## Results

### Similarities and Differences in Physical Education

In many ways Germany and the USA are similar in that both are Western industrial nations; democratic states; similar in overall social trends and school personnel attach the same significance to the social phenomenon of integration. Berlin and the DFW area are similar in that both are major metropolitan areas in their respective countries with a diverse population of over one million people.

The two areas are also similar in that both have laws (federal law for the DFW area, state law for Berlin) that require integration of children with and without disabilities in their schools. The laws in both cities give the responsibility for making placement and service decisions to a committee that plans the accommodation of the individual needs of students with disabilities. A difference between the laws in the two cities is that the Berlin school code limits the secondary school options for students with mental retardation and severe disabilities to laboratory and model schools. The Berlin school code furthermore ties the availability of education in the general classroom for students with disabilities to the availability of financial, personnel, and material resources.

Similarities also existed with regard to the variety of disabilities students had who were in the classes of the teachers in the two samples. Disabilities included physical, cognitive, behavioral, and multiple disabilities.

Although the Berlin school code requires integration, in practice teachers generally have a choice whether they want to teach an integrated class or not. The teachers in the Berlin sample have that choice because there are always several teachers available to teach a certain grade or subject and because the principal tries to accommodate the teachers' preferences. The DFW teachers, by contrast, do not have the same choice because they are usually the only physical educator at their school or one of two physical education teachers.

Physical education teaching personnel is another important difference between the DFW area and Berlin. Physical education in the DFW area is taught by certified physical education specialists who teach only physical education. These teachers receive support by adapted physical educators to varying degrees. Physical education teachers in the DFW area generally also have support by physical education paraprofessionals who assist them in their classes.

Most of the teachers in the Berlin sample taught other subjects besides physical education. Most, but not all of them, were certified physical education teachers. Adapted physical educators and physical education paraprofessionals do not exist in Berlin. However, 11 out of 16 teachers in Berlin team taught with one or two other teachers in some or most of their classes.

The most important differences, however, exist in the organization of physical education. Class sizes are significantly smaller in Berlin (approximately 15 to 30 students) than in the DFW area (approximately 11 to 100 students). Furthermore, in several schools in the DFW area, students with severe disabilities from self-contained classrooms are assigned to regular physical education. This does not happen in Berlin where class compositions do not change for physical education. Unlike in the DFW area, regular elementary schools in Berlin usually do not have self-contained classrooms for students with more severe disabilities. These students are either placed in regular classrooms or in special schools.

Physical education content is, to a large extent, similar in Germany and USA. One of the differences is the availability of large pieces of equipment and apparatus in German gymnasias. Most of the teachers interviewed in Berlin talked about the use of this equipment, how it offered possibilities for explorative learning, differentiation according to abilities and skills, and student participation in deciding what to do in physical education. In contrast, teachers in the DFW area, without this equipment, usually focused on movement education activities, games, and other activities that require only small equipment.

## Teachers' Concerns About Innovation (i.e., Integration)

Analysis of interview data revealed that participants reported concerns at four of the seven stages of the concerns model (personal, management, consequence, and collaboration). Some concerns were stated that did not fit the CBAM.

**Personal concerns.** Of the four stages of concerns, personal was the area in which Berlin and USA teachers were most different. Despite the fact that only one teacher in Berlin had completed adapted physical education courses prior to teaching an integrated class, fewer teachers in Berlin expressed personal concerns, and to a lesser degree, than their colleagues in the DFW area. Several teachers in Berlin emphasized the importance of having a choice about whether to teach integrated classes. One teacher indicated that lack of that choice may result in personal concerns. As in the DFW area, several of the Berlin participants pointed out that many of their colleagues did not want to teach integrated classes.

Widespread differences characterized the responses of the DFW sample. Almost half of the teachers did not express personal concerns and described positive initial attitudes. These individuals indicated they were prepared for integration by university classes in adapted physical education and expected to have children with disabilities in their classes. Although all but one teachers in the DFW sample had received formal training in adapted physical education, not all participants felt sufficiently prepared. Slightly more than half of the DFW sample described concerns at the personal level, similar to the following:

Coping strategies that helped DFW teachers to overcome initial concerns at the personal stage were trial-and-error collaboration with paraprofessionals and consulting with adapted physical education specialists. Some teachers independently searched actively for solutions, by researching the students' IEPs (individualized education program), for example. About 15% of the DFW teachers in this study did not try to teach the children with disabilities but delegated responsibility for integration to the paraprofessionals who accompanied these students to the physical education class.

Personal concerns seemed to be most related to prior experience, perceived adequacy of professional preparation, attitudes toward disability and integration, self-confidence, perceived competency, class size, percentage of students with and without disabilities, type and severity of disabilities, and availability of support personnel.

**Management concerns.** Samples were similar in that most of their concerns fell into this category. While the concerns at the personal stage related to both personal and contextual variables, concerns at the management stage related mostly to contextual variables.

One concern shared by all Berlin teachers was the lack of funding provided by the Berlin government. Teachers pointed out that results of these spending cuts were minimized hiring of new teachers, increased class sizes, lack of money for equipment, and great reductions in paid leaves of absence for attending in-service training.

Several teachers in Berlin expressed concerns that integrated classes are frequently taken advantage of. Because integrated classes have smaller sizes and are taught by two teachers most of the time, administrators often use these classes to accommodate students who are difficult to teach but have no legal integration status (i.e., the class does not receive additional teacher hours to accommodate special needs of these students. Teachers who were affected by such practices said that, despite the smaller class size and two teachers instructing the class, the quantity and quality of their teaching were limited.

One concern that was expressed by almost all teachers in both Berlin and the DFW area pertained to unsatisfactory facilities and equipment. In Berlin schools, two classes frequently share a gym. While this is a difficult situation in general, the teachers pointed out that it is especially difficult for integrated classes. Many students with disabilities have difficulties adjusting in a crowded gym and in a group twice as large as the one they are used to. Lack of resources was a problem for teachers in the DFW area, too. Many teachers in the DFW area were concerned about large class sizes of up to 100 students.

Some teachers in the DFW area pointed out how important the support of an adapted physical educator is for the success of integration. However, several teachers saw their adapted physical educator only once or twice during the school year for a brief period of time.

Short class periods of 25 min was another concern; several teachers in the DFW area noted that 25 min which was too short a time to give individual attention to students, especially with large class sizes. While this was a concern only of teachers in the DFW area, lack of personnel was a concern shared by teachers in both countries as were concerns about lack of equipment and the ratio of students with and without disabilities in some classes.

Some teachers in the DFW area and Berlin were concerned about high ratio of students with disabilities in regular classes, which made teaching these classes difficult. In the DFW area, a high ratio sometimes resulted when a whole group of students from a self-contained classroom was included in regular physical education. In Berlin, a formula that determines how many students with disabilities can be placed in a regular class resulted in a similar problem for some teachers.

Consequence concerns. The many positive effects of integration mentioned by teachers in both the DFW area and in Berlin by far outweighed negative effects. However, concerns were expressed about how age and psychosocial development of students and curriculum demands differentially affected educational outcomes. When asked about the effects of integration on her students, several teachers in Berlin and DFW said that in the first three or four grades they learn a lot from each other, benefit from each other, and do a lot together. In the higher grades, however, when the activities become more complex and the students more competitive, students with and without disabilities seem to drift apart. Some teachers in Berlin mentioned that some students do not develop an understanding for and tolerance of their classmates with disabilities. This problem becomes especially obvious during competitive activities in which winning is important to the students.

Several teachers in Berlin and the DFW area expressed concerns about the consequences of disruptive and aggressive behavior of some students. As reported by one teacher, "especially calm, quiet, introverted children suffer and sometimes don't get their rights because the aggressive require a lot of attention." Aggressive behaviors present challenges even if a class is taught by two teachers and resulting problems are often reported at home by the children.

Consequence concerns were mediated by personal variables. How important these concerns were to the teachers and how they coped with them was influenced by their teaching goals and philosophies, training, and experience.

Collaboration concerns. Teachers in both the DFW and Berlin samples stressed the importance of a supportive school atmosphere for successful integration. However, the type of collaboration and the participants involved were different in the DFW area and in Berlin.

When asked what was necessary to make integration work, collaboration was one of the factors most often mentioned by the participants in the DFW area. At the same time, teachers pointed out that it takes a lot of good will, effort, and communication, as well as organizational skills to achieve successful collaboration. While some teachers in the DFW area mentioned excellent collaboration with their paraprofessionals and adapted physical education teachers, others described problems with paraprofessionals, for example, who did not get involved in the teaching process or adapted physical education specialists who were not available due to time constraints.

Collaboration was equally important to teachers in Berlin. However, because 11 out of 16 teachers in Berlin worked in teams of 2 to 3 certified elementary teachers or special educators during most of the school day, their collaboration concerns focused, not on adapted physical educators who do not exist in Berlin or paraprofessionals, but on their colleagues with whom they team taught. Because teachers in Berlin have a lot of input concerning whom they want to work with in a team, only a few teachers expressed concerns about team teaching. Referring to the complex nature of team teaching and personal experience, one teacher pointed out that "team teaching can go terribly wrong." As with the consequence concerns, collaboration concerns were influenced by personal variables such as teaching philosophy, commitment, and personality.

Other Concerns. Teachers in both the DFW and Berlin samples expressed some concerns that did not fit exactly into the Concerns Based Adoption Model. The concern about lack of specific teaching competence grew out of day-to-day interactions with specific students; this concern was not so much about consequences and outcomes as about teaching process (e.g., assessment, goal setting, individualizing). This need for greater specific teaching competence was one of the main concerns expressed by teachers in both countries.

Data analysis revealed that specific teaching competence concerns were related to concerns at the personal, management, and consequence stage and are, therefore, multidimensional concerns. Specific teaching competence concerns depend on personal variables such as training and experience and on contextual variables such as type and severity of disability and content.

Safety concerns, the second category of other concerns, were expressed by teachers in both samples although to a greater extent by teachers in the DFW area than by teachers in Berlin. One reason why safety concerns were expressed less often by teachers in Berlin may be differences in working conditions, especially class sizes.

Some teachers expressed concern about safety in regard to severe muscle spasticity, balance problems, and cognitive limitations. They observed that students with more severe disabilities should not be included in all activities (e.g. very fast and/or competitive activities that heighten the risk of injury).

## Discussion

The findings of our study revealed that many aspects of integration are generalizable across cultures; teachers in both countries expressed concerns about many of the same things at the management, consequence, and collaboration stages of the CBAM as well as concerns about specific teaching competency and safety that seemed independent of CBAM stages. Teachers in both countries were most concerned about management. This finding supports the results of other studies that the increased classroom complexity caused by integration leads to increased management concerns. Like other studies, we also found that many teachers believed they were not sufficiently trained to teach students with disabilities in integrated settings and do not have enough support personnel and other resources to meet the needs of all students in their classes.

Some of the cultural differences in teacher training, school systems, physical education, and the integration of students with disabilities affected teachers' concerns, whereas others did not. However, with exception of concerns at the personal level, differences expressed by teachers seem to be, to a large extent, differences in details. For example, one teacher in the DFW area said that she wished she had only 40 students in her class instead of 75. Many teachers in Berlin, in contrast, were concerned about the increase of the numbers of students in integrated classes from 20 to 23. Although the working conditions are very different and important, the concern is essentially the same.

Analysis of our data suggested that, as in a dynamic systems model, in most cases personal and contextual variables are constantly interacting and influencing teachers' concerns. It was impossible to analyze stages of concerns without concurrently examining variables that influence concerns. We recommend that future qualitative research should address specific personal and contextual variables that explain concerns as well as teacher attitudes and behaviors that support or fail to support successful integration in the physical education setting.

The results of our study support the notion of a profile of concerns but raise doubts about a linear development of concerns about integration. Our analysis indicated that some stages may be skipped or that concerns may occur equally at two stages at the same time. Whereas Hall (1979) stated that concerns at one level must be reduced to a certain degree before concerns at the next level will fully develop, our data suggest that concerns may be related not only in inverse proportion but also proportionally. For example, many teachers linked concerns at the management level to concerns at the consequence level. Consequently, a reduction of the management concerns would also result in a reduction of consequence concerns. For example, a complaint about large class sizes that made individualized instruction difficult related directly to limited learning outcomes, especially for students with disabilities.

Christoph Lienert  
Manhattan College  
Department of Physical Education and Human Performance  
Manhattan College Parkway  
Riverdale, NY 10471  
USA  
[clienert@manhattan.edu](mailto:clienert@manhattan.edu)



## Design-Build Construction: is it really a less expensive option to build a sports facility?

*Sue Langlois  
Endicott College, USA*

The gold standard for building a new facility for an organization has been the design, bid, and build process. But the time and money required by this process can be as much as 25% greater than an increasingly popular alternative: design-build. A 25% reduction in cost is attractive...is it too good to be true? Why wouldn't organization with new facility needs take the design-build route? The aphorism "caveat emptor" (let the buyer beware) certainly applies to this situation. There are several factors that should be considered before a sports administrator takes the design-build plunge.

Sports administrators who want to lower costs and decrease the design/construction time often choose design-build because one company will provide both the design and construction services with the promise of a lower total project cost and an earlier opening of a new sports facility. It sounds very attractive, but the shrewd sports administrator needs to have both eyes open to gauge whether this design-build process will actually mean lower costs for both the short and long term.

How can the design-build process produce these savings? Usually, a design-build company incorporates elements from previous projects, so that there is less time spent on design development by the architect. This also gives the general contractor and sub-contractors more lead time to buy materials which also lowers the costs and prevents delays in construction. Also, the means of construction can be addressed by the architect and the project manager in charge of construction during the design phase. The way the facility will be constructed will influence how the architect designs the building. This can also cut construction costs.

Design-build can provide another advantage to the construction of a sports facility: eliminating the bid phase which decreases the total timetable for the process and because the design can be adapted from a previous project, a guaranteed price can be quoted quickly and for sometimes as little as \$30,000 for \$5 million facility.

The more traditional design, bid, and build process involves hiring an architect to develop a series of drawings and specifications which ultimately yields contract documents. The contract documents specify what the new facility will be like from the footings which support the foundation to the type of security system. General contractors are provided with the contract documents to submit a bid for the construction of the new facility. The sports organization will then select one of the general contractor's bids and sign a contract with the general contractor to build the facility. This whole process of designing and bidding can take several months, or if the project is fairly complex, it can take as long as one year. A shovel won't be put into the ground until these phases are completed.

There are many advantages to this traditional method. One of the most important advantages is that there are checks and balances to ensure that the general contractor follows the specifications of the contract documents. The sports organization will hire a clerk of the works who has construction expertise to represent the owner on the construction site each day. The sports organization also has the architect who has been contracted to provide the design services and to work with the clerk of the works. Both the architect and the clerk of the works are the eyes and ears of the business owner. They are the watchdogs who make sure that the construction meets all the specifications of the contract documents.

Another major advantage of this traditional process is that the architect's main concern is designing a facility that best meets the needs of the business. The architect does keep costs in mind but is not looking to make the construction process easier or less expensive for the general contractor. Locating the mechanical room closer to the security booth cuts down on the cost of construction but it negates locating a laundry or a first aid station that could cut down on the labor costs of running the facility. The short-term savings in construction may translate to higher labor costs every year for the life of the facility. It may be cheaper to put storage outside the main structure of the facility and place an access door to the main structure and a door with access to the outside. But there unwanted by-product of this strategy: a direct connection through the storage area which gives unwanted access from the outside into the main structure. The result a compromise in security and unwanted outdoor dirt tracked into the facility.

Another question to ask before you make a final decision between design, bid, and build process and design-build option is to identify who are the key players with the sports organization who will influence the development of this new facility. Will there be an organizational building committee that includes a cross section of everyone who will use this new facility or are there just a few people who have specific interests and agendas

for this new facility? To identify the facility needs of current and projected programming it would be extremely helpful to have all constituents represented in a building committee. This is especially true when there are scarce resources and the needs list is extensive. A collegial process to develop consensus about how to prioritize the long list of needs can streamline the design process and help to develop a facility that meets the mission of the organization. But there are situations where the priorities are developed by a select few who may not have the ability to envision the needs of the entire organization. The design, bid and build process would make it possible for the architects to work with the sports organization to complete a comprehensive needs assessment.

Architects have the expertise and experience in design development to raise issues that impact the viability and flexibility of the new sports facility. For example, if the new sports facility will have a natatorium, should it have a uniform depth of six feet or a graduated depth spanning from three feet to 13 feet? Should it be a metered length or yard length? Long course or short course? The design, bid, build process usually affords more time to discuss the advantages and disadvantages of each of the options. So in the long run there are no surprises to the director of the swimming instruction when swim aids need to be budgeted for non-swimmers to use the facility. This costs was weighed against attracting world class swimmers to use the facility for elite training and competition.

So which process is best for a sports organization that needs to get the most facility for the money? If your sports programming requires sophisticated services and you value having your programming needs studied extensively and incorporated into the design without fear of compromises, you would have to find an extraordinary design-build firm. If you are looking to stretch every dollar to accomplish a Spartan-like facility, as fast as possible and you have the time to find a clerk of the works who is meticulous and highly experienced in the means and methods of construction, then you would be hard-pressed to attain this product by the design, bid, and build process.

If you have weighed these factors carefully and you are still unsure, talk to other sports facility owners who have been through both processes. The more you know, the more you will contribute to the process...and that is probably the best insurance of getting the facility that you need and that you can afford.

Dr. Sue Langlois  
Dean of Sports Science  
Endicott College  
Beverly, MA.  
USA  
[slangloi@endicott.edu](mailto:slangloi@endicott.edu)

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# Sustainable Active Living: Integrating Sustainable Development with Quality Physical Education and Sport

David Chernushenko



This article is a condensed version of a discussion paper prepared for the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the United Nations Environment Programme (UNEP).<sup>\*\*</sup>

## A. Overview

The provision of physical education and the opportunity to participate in sport and physical activity on a regular basis are critical building blocks for the development of healthy individuals and, by extension, a healthy society. Over the past several decades, studies have consistently shown how quality physical education (QPE) can provide a range of health (physical, social, emotional, psychological) benefits to students when they receive it on a regular basis during their school years. Habits and practices developed at a young age frequently translate into lifelong benefits. The benefits to society as a whole, of encouraging and providing access to physical activity and sport opportunities, are economic as well as social, through avoided costs as well as stimulating new and complementary economic activity.

Despite this overwhelming evidence, the status of physical education is in decline in many countries worldwide. When forced to compete for resources, space and time, PE is often given lower priority than “core curriculum” subjects (literacy, numeracy, and science) and emerging subjects (e.g. computers). The slow erosion of physical education points to the need to “rethink, renovate and adapt the policies and programmes of physical education in order to bring them into line with the changing world.” (UNESCO, 1999).

At the same time as this rethinking and adaptation is going on, many political leaders and members of civil society worldwide are going through a similar re-evaluation and redesign, as they work their way towards a more “sustainable” approach to development, one that balances and integrates the pursuit of economic, environmental and social goals, and gives due regard to the future of the planet and its inhabitants.

The goal of sustainable development is to have a healthy planet, populated by healthy individuals, supporting healthy societies and economies. The goal of quality physical education, on the other hand, is to produce healthy individuals, capable of leading long, healthy and productive lives. The two goals are connected and complementary: healthy, active individuals play a key role in the creation and maintenance of a sustainable community, while sustainable development is an important contributor to the development of healthy individuals.

The overlap between the goals of promoting sustainable development and the goals of quality physical education and sport, point to an opportunity: QPE can become more relevant and of renewed and broader interest to more people, if it integrates a more holistic and far-reaching approach.

## B. The relevance of sustainable development to QPE and sport

The relevance of sustainable development to QPE and sport can be characterized by the following four statements and propositions:

1. **To have the best chance of being healthy, individuals need a healthy natural environment.** QPE should teach students about the importance to them of a healthy environment. Students should be taught about various environmental threats to their health and to their ability to engage in physical activity, and provided with guidance on how to reduce or avoid such risks.

**Table A: Health threats from a degraded environment**

- airborne smog and other outdoor air pollutants
- indoor air quality
- toxic chemicals
- ultra-violet ray exposure
- soil pollution
- pesticides
- water-borne pollutants/bacteria
- cigarette smoke

**2. Opportunities to pursue a healthy and active lifestyle are threatened by unsustainable development.** QPE should teach students about ways in which more sustainable development can protect and even increase their opportunities to lead a healthy, active lifestyle.

**Table B: Key Threats to physical activity opportunities from unsustainable development**

- ozone layer depletion
- climate change
- habitat/biodiversity loss
- radioactive contamination
- accumulation of toxins
- soil and water contamination
- acid rain damage to forests

**3. Physical activity and sport can have a negative impact on the natural and social environment, but need not do so.** QPE should teach students why they should, and how they can, pursue physical activity and sport in a more sustainable manner and how, in doing so, they can contribute both to more sustainable sport, and to a more sustainable community and global society.

**Table C: Some Unsustainable Aspects of Sport and Physical Activity**

Facilities	Development of fragile or scarce land types Construction waste sent to landfill or incinerator Consumption of non-renewable resources Creation of greenhouse gases Ozone layer depletion (from refrigerants) Soil and water pollution from pesticide use Public funds and land used for private and elite sport Construction tends to be in disadvantaged neighbourhoods
Events	Creation of greenhouse gases Air and noise pollution from movement of people/goods Spectator waste sent to landfill, incinerator and sewage plant Paper consumption by media Waste generated from signs, banners, temporary booths, etc. Local residents temporarily or permanently displaced Public left with burden of debt generated and ongoing facility upkeep

Degradation of parks through over-use  
Erosion of trails and shorelines, riverbanks (e.g. mountain biking, canoeing)  
Litter and fire damage on mountains  
Restricted public access to recreational spaces

**4. Creating a healthy, more sustainable community will require the active participation of all members of society.** QPE should teach students why they need to take an active role in the way their community and country is structured and governed, and how they might begin to do so.

Individual health and well-being depends on more than a good diet and plenty of exercise. A whole range of “environmental” factors also come into play, including social and political ones. If the goal of Quality Physical Education is to provide individuals with the knowledge, tools and habits that they will need to maintain an active and healthy lifestyle, then QPE curriculum and activities must somehow address this wide range of issues. First, QPE will need to provide instruction in how to recognize factors that will negatively affect individual health. Second, QPE will need to provide some instruction in how to avoid these negative influences. Third, and perhaps most important, QPE will need to look at ways in which individuals can contribute to building a more sustainable society where these negative influences have been minimized or even eliminated.

### ***C. The need to integrate QPE and sustainable development***

The extent to which physical education and sport have been integrated with sustainable development remains relatively limited on a global basis. Finding both topics covered in any comprehensive way within the same curriculum in schools remains exceptional rather than common, even if there is a detectable trend in this direction. This being the case, it is natural to consider why it is so.

## **I. Obstacles to Integration**

### **Insufficient knowledge and training**

Too few professionals in the field of education, let alone experts in physical education and sport have sufficient knowledge of environment and social issues to be able to either recognize the extent and importance of the connections between sustainable development and physical activity, or the importance of working to integrate common issues and themes. Even where teachers and leaders in QPE recognize that more work could be done to integrate them, few have the knowledge to initiate this process and to develop appropriately integrated curriculum and activities. With sufficient resources, such integration might be more common and movement in this direction could certainly be accelerated.

### **Resource and time constraints**

Picking up from the previous point, resources for education are increasingly at a premium in almost every country, as many governments work to reign in past deficit spending or to maintain basic educational systems. With money being tight, new initiatives tend to be at the end of the line for allocation of resources. In fact, many school systems have yet to adequately fund basic PE programmes. Some only give lip service to providing quality physical education on a daily or even regular basis. Without QPE programmes that feature professional instruction, it is difficult to propose or impose new approaches, topics and course material, even when this may be an appropriate direction for the future.

### **The “back to basics” agenda**

Compounding the challenge of resource constraints in some countries, notably Canada and the United States is a “back to basics” agenda, which emphasizes a return to traditional basic subjects, but with a strong modern emphasis on marketable technology skills, such as computer proficiency. This agenda tends to be driven partly by resource constraints and partly by an ideological shift, in which many of the arts (music and drama) are given lower priority, along with physical education. Environmental education is similarly being whittled down, perversely it might seem, just after achieving a foothold in the curriculum during the 1990s.

How green the Games? Greenpeace's environmental assessment of the Sydney 2000 Olympics – Lessons Learnt.

*Reprinted with Permission from Palese, Blair et al. (2000). How green the Games? Greenpeace's environmental assessment of the Sydney 2000 Olympics. Page 1.*

**Lesson 1.** Make specific environmental commitments as part of your development plans well before design plans are finalised and construction begins. Make these commitments public.

**Lesson 2.** Environmental Guidelines must be clear and specific benchmarks that are non-negotiable, measurable and backed up by law. These benchmarks must be included in all of the tenders offered for Olympic development and made public.

**Lesson 3.** Olympic organisers and developers must be required to collect and report information on all environmental aspects of their project and make this information publicly available.

**Lesson 4.** Independent auditing of all environmental information is essential to ensure credibility.

**Lesson 5.** No matter how Olympic construction is managed - with one project manager or as independent projects and contracts - Olympic organisers must ensure that the best and most cost-effective environmental systems and materials are used project-wide.

**Lesson 6.** Great Enthusiasm for and expertise in environmental building and event management exists at all levels internationally. Seek out and engage those innovative and creative experts and companies interested in the environmental success of your event.

**Lesson 7.** High-level and consistent consultation with the community, environmental and social groups is essential and must be part of the project from the beginning. A clear process for conflict resolution should be established as part of the city's Environmental Guidelines.

**Lesson 8.** Education about environmental initiatives undertaken and the benefits gained is essential at all levels, from the public to athletes, sponsors, the media and the commercial sector.

#### **Full Reference**

Palese, Blair et al. (2000). How green the Games? Greenpeace's environmental assessment of the Sydney 2000 Olympics. Greenpeace International: Australia Pacific. ISBN 1-876221-08-9

## **II. Integration as a practical and effective solution**

Interestingly, the most practical and effective way to overcome these constraints may lie in the word "integration". After all, it is not necessary to create entirely new courses and re-train or hire new teachers in order to ensure that relevant sustainable development concepts and issues are included as part of physical education. The most practical and cost-effective solution would lie in re-orienting QPE so that it introduces students to some important new issues, uses activities that integrate and reinforce relevant lessons, and works to promote the shared goal of sustainable active living. This should not be done at the expense of the integrity of existing QPE programs, however. A cross-curricular and team-teaching approach might best serve this need. Some practical suggestions as to how this might be done are made in the final section of this paper.

## **III. A New Integrated Approach: Sustainable Active Living**

The argument in favour of better integrating QPE promotion and the pursuit of sustainable development, to the benefit of both goals, appears persuasive enough. What is missing at this point, however, is an appropriate new terminology, supported by a comprehensive framework, that is not only conceptual but can be put into practice.

In a recent paper entitled Physical Education and Sustainable Development: An Untrodden Path – one of a very small number of academic papers to directly tackle the connection between the two – authors Lake, Stratton, Martin and Money (2001) propose an appropriate term and argue for the adoption of the concept: "Sustainable active living."

Sustainable active living (SAL) is an approach to quality physical education that would have an integrated goal of educating individuals to live healthy, active lives while equipping them to strive to exemplify sustainable living and to promote it in all spheres of their lives and their community.

While the authors do not elaborate much on their idea, they provide a useful new term and encourage further thinking and discussion of this concept.

In the early days of its conceptual development and practical implementation, SAL might begin by focusing on areas such as:

- Exercise, healthy diet and lifestyle;
- Understanding, accepting and promoting fair treatment according to gender, ability, socio-economic conditions, etc;
- Pursuing physical activity in a way that exemplifies sustainable practice; and
- Using sport and recreation opportunities to promote sustainable development in society.

The idea of sustainable active living will be explored in greater detail in the final section of this paper.

While we must be careful not to place too much on the backs of PE practitioners – who cannot be expected to provide a catch-all subject or magic solutions to social and political challenges – physical education is one area where certain relevant topics and approaches essential to sustainable development can be introduced and practised, ideally as part of a broader cross-curriculum approach.

#### ***D. Recommendations for developing linkages to improve physical education and promote sustainable development***

The declining status of quality physical education points to a need for QPE to expand its focus, so as to incorporate discussion of a broader range of environmental and social issues. QPE can help to guarantee its ongoing relevance by examining and responding to some of the major contemporary challenges and issues of society. QPE programs, both inside of schools and elsewhere, must not just be about the individual, the body and personal health decisions. QPE must also be about the health of the society and the environment in which it is being taught.

Current environmental and social conditions worldwide point to the necessity for all sectors of society, in all regions, to adopt and promote sustainable practices with a renewed sense of urgency. Participants in physical education and sport worldwide, at whatever level, have a role to play, both in adopting a sustainable approach that we might call sustainable active living (SAL), and in integrating many applicable elements into a curriculum that promotes SAL.

From our examination of the connections between QPE and sustainable development, and the potential for their deliberate further integration, several conclusions stand out:

- To achieve a more sustainable society, all sectors will have to play an active part, including QPE and sport;
- A sustainable society, and the work that will be required to get there, requires healthy individuals who can see the connections between issues. QPE and sport can help to develop individuals with this kind of vision and understanding;
- Active individuals have a vested interest in pursuing and promoting sustainable development. They and their opportunities for healthy active living, suffer from a polluted and socially impaired environment;
- The pursuit of sustainable development will be greatly enhanced by individuals and organizations that have chosen to lead by example. By training individuals who understand the importance of sustainable active living and ways to adopt it as a conscious lifestyle choice, QPE will be motivating others to follow suit, and
- Active individuals can, and even should, be encouraged to be activists for sustainable development. A healthy individual is one who questions, takes responsibility and participates in community life.

Overall, we can conclude that the concerns of QPE, sport and sustainable development overlap in a number of ways, some obvious and some subtle. We can also conclude that they share a common goal: the promotion of sustainable active living.

Sustainable active living (SAL) is an approach that combines elements of quality physical education and the promotion of sustainability. SAL is an approach to living as well as to personal and social development that

can be taught to youth in an institutional setting (schools, clubs, etc.). The applicability of SAL goes well beyond schools and sports clubs, however; it is equally an approach to lifelong activity, development and learning which emphasizes engaging in regular physical activity, and the adoption and promotion (at an individual and collective level) of environmental and social responsibility. SAL is living in a healthy, active and responsible way.

By teaching SAL to youth and encouraging its lifelong practice, QPE teachers and others with whom they engage in cross-curriculum or “team” teaching can contribute to the healthy and sustainable development of the responsible citizens and leaders of the future. In this way, schools and other institutions will be contributing to more sustainable social, environmental and economic development in greater society.

Quality physical education practitioners and all organizers and participants in sport and physical activity in their many forms have both an opportunity and a responsibility to adopt and promote the concept of SAL.

SAL can and must be introduced in a manner that supports the importance and integrity of QPE, however. The introduction of SAL in schools should help to reinforce the importance of quality, regular physical education and sport activity, rather than as a replacement or competing priority. QPE practitioners, in primary schools through to university, can work with teachers of other subjects to support SAL as a cross-curricular approach.

In this final section, we will propose a number of ways in which the principal actors in QPE and sustainable development might develop a framework, implementation strategies and some concrete steps for: consciously integrating sustainable development into QPE and sport; using QPE and sport to support the pursuit of sustainable development; and fleshing out and promoting the concept of sustainable active living.

## **I. A Framework for Adopting and Promoting the Sustainable Active Living Approach**

This section proposes a Framework for integrating sustainable development into the theory and practice of quality physical education and sport through the adoption and promotion of the SAL approach.

Teaching SAL in an institutional setting involves teaching and promoting four principal elements:

1. an understanding of the importance that a healthy environment and a healthy social structure play in the pursuit of individual physical, mental and emotional health;
2. an understanding of the impact (both negative and positive) that each person can have on the natural environment and on the community;
3. an understanding of how the individual, alone and in a group, can adopt and demonstrate practices that promote sustainable environmental, social and economic conditions, and
4. an understanding of how an active person can actively promote positive social change, and the need for all individuals to do so, in pursuit of a sustainable society and environment.
5. Sustainable active living can be adopted and promoted in quality physical education and sport using the following framework.

### **Healthy environmental conditions for active living**

Quality physical education should promote an understanding of the following as environmental pre-conditions for sustainable active living:

1. Basic outdoor and indoor air quality standards and the health effects of certain pollutants.
2. The health impact of exercise, sport and strenuous activity in polluted air.
3. Basic outdoor and indoor water quality standards and the health effects of certain chemicals and pollutants.
4. The impact of regular physical activity in or on both outdoor and indoor water bodies.
5. Basic drinking water quality standards and issues.
6. Basic food quality standards and issues, including topics like organic foods, vegetarianism and genetic modification.
7. Hazardous and toxic materials in the environment, notably in air, water and soil.

Quality physical education should also teach the following strategies for mitigating the impact of a potentially harmful environment:



1. Strategies for reducing the risk of ultraviolet radiation (e.g. skin cancer, eye damage) during outdoor physical activity.
2. Strategies for reducing the risks associated with physical activity in hot conditions.
3. Strategies for reducing the risks associated with physical activity in polluted outdoor and indoor air.
4. Strategies for reducing the risks associated with physical activity in polluted water and chemically treated indoor pools.
5. Strategies for reducing the risks associated with food and water consumption.
6. Strategies for reducing the risks associated with hazardous and toxic materials at, in or near parks, fields and other sport facilities.

### **Healthy social conditions for active living**

Quality physical education should promote an understanding of the following social issues, and their implications for sustainable active living:

1. Ethical standards, as they relate to the practice of sport, active living and larger issues.
2. Gender issues, including similarities, differences, equal and fair access, body image, appropriate activities, etc.
3. Sexual health issues, including reproduction, disease, etc.
4. Physical and mental ability and disability in sport and society.
5. Access to physical activity and sport for marginalized (by race, religion, socio-economic background, etc.) groups.
6. Strategies for managing conflict and improving cooperation and teamwork.
7. Other social issues relevant to active living that may be a priority in any given community.

To build and strengthen sustainable social conditions, and conditions that will contribute to sustainable development and active living, quality physical education should promote the following:

1. Develop and encourage individuals who are capable of questioning existing environmental and social conditions, and who are able and willing to offer constructive alternatives.
2. Develop and encourage such attributes as ethical behaviour, compassion, social responsibility and principled leadership.
3. Develop and encourage individuals who are capable of and willing to lead by example, and to be active agents for social change.

### **Sustainable practices in physical activity and sport**

Quality physical education (particularly at the college and university level) should promote an understanding of the following issues related to sport and recreation events, facilities and activities, and their implications for sustainable active living:

#### ***Principles of sustainable facility design and operation***

1. Enhance ecosystems during development and protect them during ongoing use of the site.
2. Offer a safe and high quality environment for people who work at or use the site, and a highly desirable recreation destination.
3. Reduce demand for water from potable drinking supplies.
4. Achieve high levels of energy efficiency, and purchase energy requirements from sources that are renewable and/or which emit low levels of greenhouse gases and other pollutants.
5. Minimize the use of materials which deplete natural resources or create toxic pollution in their manufacture, use or disposal.
6. Preserve or recreate significant areas of open and natural spaces for current and future enjoyment.
7. Avoid ozone-depleting substances.
8. Minimize impact of noise on local community and other resident species.

9. Minimize impact of lighting on local community and other resident species.
10. Protect the quality of water leaving the site via run-off or infiltration.
11. Improve the quality of soils wherever possible, and protect soil and sediments within the developed area.
12. Maximize the appropriate use of recycled materials and minimize the generation of waste in all development and ongoing operational activities.

### ***Common Issues for Events and Activities***

1. Limit impacts from facility construction/operation (see above).
2. Minimise consumption of non-renewable resources (fuel, metals, etc.).
3. Minimise consumption of natural resources (water, wood, etc.).
4. Minimise the generation and emission of greenhouse gases (electricity, heating, transportation, etc.).
5. Minimise air and noise pollution from movement of people and goods.
6. Take steps to reduce soil erosion and compaction by spectators.
7. Minimise spectator waste sent to landfill, incinerators and sewage plants.
8. Reduce paper consumption by media and officials.
9. Minimise the waste that is generated from signs, banners, temporary booths, etc.

## **II. Strategies for Implementing Sustainable Active Living**

Using the above Framework, how might this new sustainable active living “agenda” be promoted and implemented across the wide array of institutions and organizations with a mandate for physical education and sport? Various institutions and groups responsible for physical education and sport, and/or environmental and sustainable development education and activities, might begin to integrate and promote a sustainable active living approach.

<b>Implementing Body</b>	<b>Activity</b>
Government ministry of education	<ul style="list-style-type: none"> <li>• Adopt and promote SAL as a primary focus of QPE approach and objectives</li> <li>• Develop curriculum integrating SAL into PE and other appropriate subject areas and school activities</li> </ul>
Teacher training college	<ul style="list-style-type: none"> <li>• Teach SAL approach and activities</li> <li>• Provide PE and environmental education teachers with instructional material, including activity kits</li> </ul>
School	<ul style="list-style-type: none"> <li>• Re-emphasize the importance of quality daily physical education, and re-energize it with an SAL focus</li> <li>• Integrate SAL approach into other relevant subjects (e.g. general science, biology, geography, environmental education)</li> <li>• Introduce team-teaching of modules where lessons cross between PE, environmental education, health, sciences, etc.</li> <li>• Adopt SAL approach to all school activities and games</li> <li>• Adopt SAL approach and practices to other school-related activities, including transportation to/from school (e.g. “Walking schoolbus”)</li> </ul>
University/college	<ul style="list-style-type: none"> <li>• Adopt SAL approach and integrate it into relevant courses (physical and health education, sports management, environmental studies, resource management, outdoor education)</li> </ul>

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Physical educators	<ul style="list-style-type: none"> <li>• Adopt SAL approach and practices in all recreational and competitive sport activities, events and facility operations</li> <li>• Adopt SAL approach to teaching physical education classes and activities</li> <li>• Work with teachers in other subjects to team-teach appropriate topics/modules</li> <li>• Introduce SAL practices in all school programs, activities, events</li> </ul>
Sports club	<ul style="list-style-type: none"> <li>• Adopt SAL approach and integrate into sport programmes</li> <li>• Adopt and demonstrate SAL practices in club operations and events</li> </ul>
Outdoor education center/camp	<ul style="list-style-type: none"> <li>• Adopt SAL approach and integrate into all camp recreation and sport programmes and other activities</li> <li>• Adopt and demonstrate SAL practices in operations and events</li> <li>• Introduce and demonstrate SAL approach and practices in all nature and outdoor education programs, activities and field trips</li> </ul>
Government ministry of health and sport	<ul style="list-style-type: none"> <li>• Adopt and promote SAL approach to all sport governing bodies, facility operators and event organizers</li> <li>• Develop partnerships with ministries responsible for education, environment, health and fitness, to promote SAL and specific targeted initiatives (e.g. air quality, active transportation)</li> </ul>
Sport governing bodies and major sport organizations (e.g. IOC, FIFA)	<ul style="list-style-type: none"> <li>• Adopt and promote SAL approach to all sport associations, clubs, facility operators and event organizers</li> <li>• Adopt and implement the Olympic Movement's Agenda 21 for Sport</li> <li>• Provide technical material to clubs, event hosts, facility managers</li> <li>• Develop partnerships with health and environmental organizations and help organize/fund concrete joint projects</li> </ul>
Coaches	<ul style="list-style-type: none"> <li>• Adopt and promote SAL approach in training and competition</li> <li>• Develop partnerships with sport and environment groups, training facility operators and event organizers to promote healthier environmental conditions for training and competition</li> </ul>
Medical/ health professional association	<ul style="list-style-type: none"> <li>• Adopt and advocate SAL approach to population health and disease prevention</li> <li>• Develop partnerships with sport and environment groups to promote healthier environmental conditions</li> </ul>
Family	<ul style="list-style-type: none"> <li>• Adopt SAL as an approach/philosophy in all household and family activities</li> <li>• Choose active forms of transportation and recreation, if possible</li> <li>• Identify ways to reduce the environmental and social impact of building, renovating, operating and cleaning the home and garden</li> </ul>

## E. Conclusion

This Sustainable Active Living “agenda” can be promoted and implemented across a wide array of institutions and organizations with a mandate for physical education and sport, including: government ministries of education, health and sport, teacher training colleges, primary schools, universities and colleges, sports clubs, outdoor education centres, sports governing bodies, and medical/health professional associations.

Opportunities exist for partnership between bodies and individuals such as those just described. Not only can partnership help to reduce the work involved for any one organization in the adoption and implementation of SAL, partnership is also likely to increase effectiveness by using the appropriate partner agent for a particular task.

While the SAL approach is new, and may be considered both radical or utopian by some stakeholders, it has considerable potential to reinvigorate quality physical education and sport, while at the same time promoting the goal of sustainable development on a global basis.

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Papers and Conference Proceedings

Papers from MINEPS III — Third International Conference of Ministers and Senior Officials Responsible for Physical Education and Sport:

- a. “Compilation of the Recommendations of MINEPS I and II: empirical overview of their application by Member States and by UNESCO” (ED-99/MINEPS III/REF.4)
- b. “International Charter of Physical Education and Sport” (ED-99/MINEPS III/REF.5)
- c. “UNESCO and the growth of international cooperation in the field of physical education and sport: future prospects.” (ED-99/MINEPS III/REF.1)

*\*\*To request a full version of this paper, contact Marcellin Dally of UNESCO ([M.Dally@unesco.org](mailto:M.Dally@unesco.org)) or Wondwosen Asnake of UNEP ([wondwosen.asnake@unep.ch](mailto:wondwosen.asnake@unep.ch)).*

David Chernushenko  
President, Green & Gold Inc.  
99 Seneca St.  
K1S4X8, Ottawa, ON  
Canada  
<http://www.greengold.on.ca>  
[david@greengold.on.ca](mailto:david@greengold.on.ca)

## Excerpt from an Interview with H. E. Mr. Adolf Ogi, Special Adviser to the Secretary General of the United Nations on Sport for Development and Peace.

Printed with Permission from UNEP - Teen Planet Magazine, No.5, page,7.

*• President Ogi, sport is the most popular social event, yet in many parts of the world sport education is not given the attention or the priority it deserves. If we continue to say sport plays a valuable role in society, then how come we are not investing enough in sport education? How can you assist in addressing and advancing this important field?*

• There should not be any doubt in our minds about the valuable contribution of sport to our society. Sport by itself is an institution where people learn respect for one another, discipline teamwork and a sense of pride, a sense of belonging and achievement in what they do. I am aware of the fact that a significant amount of attention is given to sport whenever there are major sporting activities.

We have to remember that all the world-class athletes did not just start training yesterday and become champions today. They have gone through intense training in schools and other training arenas. Of course, our objective is not to turn every child into a world-class athlete, that is humanly impossible, but we want to offer and enable them to live a healthy and comfortable life.

If we continuously want to see the good values of sport throughout society, both rich and poor, then we have to invest more in physical education and sport, which is not the case today.

It is not enough for adults to admit that not enough attention is paid to sport education. We must strive to take meaningful steps and actions to make sport a significant contributor to a peaceful society. If we don't create the opportunities for our children to engage in physical activity and sport, who else is going to do it?. After all, the strength of any nation depends on the health of its youth and children.

I hope that international development co-operation will also include tangible provisions for the inclusion of sport education as one of the major factors for development. This is an issue that I am very much convinced should be addressed, and I will continue to raise it when I meet the people who are responsible for youth, sports and development issues.

United Nations Environment Programme (UNEP)  
<http://www.unep.org>  
[Wondwosen.asnake@unep.ch](mailto:Wondwosen.asnake@unep.ch)

## 'Feminising' Physical Education

Rachael Jefferson-Buchanan, BEd Hons, MA.



In the ensuing discussion, an example of how the content of a PE curriculum can be modified to suit the changing needs of girls as they approach womanhood is given. Aspects of the 'hidden' curriculum are also revealed as important influences upon the participation level of female adolescents in PE.

Physical educators, parents and politicians alike have become increasingly concerned in recent years by girls' participation in physical education and sports (Babb & Kirk, 1999). Evidence shows that adolescent girls are far less likely to lead active lifestyles than their contemporary males. Whilst this has obvious physical disadvantages (e.g. increased risk of osteoporosis and coronary heart disease), it can also affect the development of feminine self-confidence and self-esteem. Perhaps the notion of modifying PE curriculum to suit the changing needs of these young women would not have been seriously considered during bygone days of physical training and instruction in schools. However, if we continue to be unsuccessful in our attempts to inspire the majority of female students to participate in physical activity outside school (and beyond their scholastic years), then a review of *what* we teach must take place.

Over the last thirty years or so, the evolution of Physical Education has been quite dramatic. The concept of physically educating a person has indeed widened to embrace their social, emotional, spiritual, moral, aesthetic and intellectual education. Notwithstanding the complex nature of PE, our central aim should be to educate young women to want to participate in sports for the rest of their adult lives. In this sense, we are trying to attain our utopic vision of physically active females through each phase of their lives. Our responsibility as physical educators weighs heavily on our shoulders, since it is no exaggeration to say that we can positively or negatively influence a young woman's life-long attitude towards physical activity. Physical education experiences for some adolescent girls can become irrelevant, frustrating, and indeed prevent them from wanting to participate in sports activities beyond school. Whilst unable to wave a magic wand and find the perfect solution to each individual adolescent girl's physical needs, I believe it *is* possible to raise the general level of female participation in physical activity through prudent curriculum design.

### The International School of Geneva

The distinct gender differences that exist between young adults - particularly from the onset of puberty - warrant serious consideration when developing a physical education programme. Since I began teaching at *The International School of Geneva* 13 years ago, I have worked extremely hard to develop a curriculum that is non-sexist, co-educational, and also flexible enough to enable female students from 14 years upwards to select physical activities with or without a distinct gender bias. In most schools, a number of adolescent females will be extremely able sportswomen, others will struggle in physical activities, whilst the majority will have levels of ability that fall between these two extremes. However, it is clear that by the age of 14 years (or even earlier in some cases), preferences for certain physical activities are visible. If this issue is not addressed, we run the risk of socialising young women out of physical education. Amongst young women aged 16-24 only one third apparently achieve the recommended amount of moderate intensity physical activity (Hanebro et al, 1997). We need to ask ourselves why this happens, and seek ways in which we can promote young women's life-long involvement in physical activity.

In the lower years of *The International School of Geneva*, we consider that boys and girls should have equal access to male-dominated activities such as Soccer and Rugby. We therefore no longer have a gender differentiated PE curriculum, in response to student complaints that we were 'sexist' to offer Rugby only to boys, Field Hockey only to girls, and so on. Games and teaching approaches have consequently been adapted to suit a mixed gender environment, and female students seem to feel more included in these formative years.

Our PE programme for students aged 14-16 continues to cater for all physical abilities and gender interests, by providing a selection of activities that will appeal to the sporty and less sporty female. The table below outlines our annual PE programme:

Dates	Module A	Module B	Module C
Sept - Oct:	EITHER: Golf	OR: Aerobics & Steps	OR: Soccer
Oct - Dec:	EITHER: Squash	OR: Table Tennis	OR: Volleyball
Dec - Feb:	EITHER: Taekwondo	OR: Badminton	OR: Basketball
Feb - March:	EITHER: 10 Pin Bowling	OR: Stretching & Yoga	OR: Tchoukball
March - May:	EITHER: Golf	OR: Handball	OR: Track & Field
May - June:	EITHER: Tennis	OR: Softball	OR: Trampoline

Students must choose one module (A, B or C) for each time period given, to create their individual programmes of PE. Through choice, all students seem to gain a greater sense of ownership, and more importantly, female motivation and attendance have greatly improved since implementing this type of curriculum.

We are able to maintain the girls' interest, by offering them an alternative to the traditional games-dominated PE curriculum when they reach the age of 14. At this age, it is apparent which girls are successful in team games. An able games player will never pass to a weaker student if they know that she will continually drop the ball and lose possession for their team. These same girls who are less competent games players often really enjoy the more aesthetic, health-related domains of the PE curriculum. This is the philosophy that underpins the PE programme that we offer to adolescent girls at this age. We are also aware that the majority of girls who leave our school do not continue to pursue team activities, opting instead for more recreational and individual sports such as yoga, aerobics and dance. We have to therefore ask ourselves if we should be insisting that these young women participate in traditional team games until the end of their sporting school life. Should we not instead be broadening their experiences to include more 'feminine' activities such as yoga, aerobics, and trampoline?

### The Hidden Curriculum

Another element that can adversely affect a young woman's participation in PE is their clothing. Bodily changes during adolescence can make young women extremely self-conscious about participating in activities clad in figure-hugging PE kit. Many PE departments in UK schools insist that short games skirts must be worn by female adolescents, particularly during outdoor game activities. In other schools, leotards are compulsory for the aesthetic domains of PE such as dance and gymnastics. During the 1970s and 1980s, traditional uniform rules such as these were widely accepted as the norm. However, just as society has changed enormously during the last thirty years, so have the attitudes of our young women. Rules are regularly challenged, and a more sensible and humane approach to PE kit for young women of the 21st century needs to be adopted. It must be preferable to have enthusiastic females participating in tracksuit bottoms and T-shirts, rather than having students come to PE lessons dreading wearing their 'mini skirts' in cold temperatures, or refusing to wear leotards that show every bump and bulge. If young women are restricted and embarrassed by archaic PE kit policies, then PE lessons can all too often become a battleground.

### Conclusion

Physical Education should be inclusive and facilitate all students in their learning, be they female or male. We should offer equal opportunities at all stages of Physical Education, and choices of activities at later stages in the adolescent's life. We should consider the repercussions of excluding young women from male-dominated sports, and simultaneously offer them 'feminine' alternatives to a traditional games-oriented PE

curriculum. Young women's interests in physical activities are primarily fostered at school level, and we have a responsibility as physical educators to nourish girls' sporting motivation.

Of course the ways in which girls' attitudes to PE can be improved are never straightforward. Certainly, there is a need to address current inequities and gaps in provision for young women at school level. Moreover, the dominance of male sporting culture, and stereotypes about appropriate feminine behaviour for women should be recognised and understood. Sports marketing and promotional materials that portray girls and women in a positive way are, of course, essential to contravene this. Nonetheless, teachers also need to raise their expectations of young women, and set certain targets in schools to ensure that gender equity is achieved in PE and the general school environment. 'Feminising' PE by offering wider (and perhaps more relevant) choices to them at later stages of their school career may well be one solution to the female 'drop out' syndrome in PE. This may subsequently have a positive effect on young women's attitudes to sports in later life, giving them the basic skills and confidence to become active adults.

## References

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Rachael Jefferson-Buchanan  
Head of Secondary PE  
The International School of Geneva  
La Chataigneraie Campus  
Founex  
Vaud  
SWITZERLAND  
[rachael.buchanan@ecolint.ch](mailto:rachael.buchanan@ecolint.ch)





## Stiftung Jugendfussball / Youth Football Foundation streetfootballworld - the other dimension of the game

*Jürgen Griesbeck & Vladimir Borkovic, streetfootballworld*

### The other dimension of football

#### Introduction

Football (soccer) is the most played and the most popular sport in the world. Youth issues and problems are receiving attention around the world. Violence, gang issues and lack of education are just a few of the various but common issue that touch the youth around the corners of the globe. Sport has often been touted as a tool for aggression management, and social and physical development. The sports world displays optimism regarding its actual contribution to the quality of life in society. It is an old cliché that sport is continually used as a panacea to heal all of society's ills, however the socializing impact of sport, and in particular, the sphere of influence of modern day sports, are debatable. Do we need to modify the games today's youth are playing in order to provide them with the skills they need for life today?

In response to the need for more information on the impact of sport and modified sports on developmental issues, the Youth Football Foundation / Stiftung Jugendfußball was founded in the year 2000. Football was taken as the focus for the work as it is the most popular sport to the majority of people, it can be played with few facilities and equipment and it is non-gender specific, so that both males and females can play together.

The Youth Football Foundation was founded by a group of German experts in football and sport science, with the aim to develop and foster new approaches for the good of football. The main objectives of the Foundation are: to support research projects on football, to highlight the results of this research and to work in the field of youth football, especially talent scouting. The founders and members of the Youth Football Foundation are former German World and European Champions (1990 and 1996), as well as researchers in sport medicine and sport psychology, who are supported by a council of experts in football. The patron of the Foundation is the German Chancellor.

The Youth Football Foundation is currently developing two approaches: fussballD21.de and **streetfootballworld**.

### One project - two fields of action

**streetfootballworld** is developing two fields of action within global grassroots football:

1. sharing good practice and networking on a global scale

The **streetfootballworld** Forum and Festival takes place every 4 years, for the first time in 2006 in Germany. It is a result of the permanent co-operation of the grassroots football community, and supports continuous development in the area of grassroots football in general.

2. developing concrete projects on a local scale

**streetfootballworld** develops concrete projects in the host countries of major football events. These approaches aim to highlight the global responsibility and local/regional sustainability of the these events by tapping into the respective local development.

In 2002 **streetfootballworld** started two pilot projects towards the FIFA World Cup 2006 in Germany, together

with local authorities and a team of partner organisations. footballgeneration / Schulen zeigen Flagge 2006 and footballspaces / Spielorte 2006 are focusing on football and society (together with schools) and public football grounds (together with local initiatives and authorities).

[www.streetfootballworld.org](http://www.streetfootballworld.org) offers an interactive communication platform in the form of a common working place and a permanent meeting-point for the grassroots football community on a local and global scale.

### Mission of streetfootballworld

**streetfootballworld** defines grassroots football as all kind of football in a local community (e.g. street football, street soccer, urban soccer or community football) focusing on social inclusion, violence prevention and non-formal education as specific goals. Almost all over the world football enthusiasts are running programs and projects for young people, based in the local community scheme and focused on the social development of the participants.

**streetfootballworld**, together with the International Council of Sport Science and Physical Education (ICSSPE/CIEPSS) initiated a best practice survey in order to identify as many initiatives as possible that have the general features “grassroots football” and “social inclusion / social development”. In order to establish a strong network of projects worldwide, **streetfootballworld** focused the survey on each continent and the results were encouraging: all over the world grassroots football is “used” as a tool for social inclusion, violence prevention, non-formal education - it is recognised and celebrated as a powerful moderator for the social development of young people. The following map shows just a few projects working on “the other dimension of the game”.

### best practice survey as of Dec. 1/2002

audela, Argentina  
homeless streetsoccer world cup, Austria  
gol de letra, Brazil  
soccer of future, Brazil  
reconciliation through streetfootball, Burundi  
somatic street soccer, Canada  
football for peace, Colombia  
liverpool youth sport link, England  
leeds football community link, England  
kensington youth integration, England  
salford football community link, England  
the hartley center, England  
nacro norwich football project, England  
football coaching for the homeless, England  
all stars – street football, Finland  
president's cup, Georgia  
flats youth project, Ghana  
football president's cup, Georgia  
ballance2006, Germany  
streetfootball for tolerance, Germany  
bunt kickt gut, Germany  
street football children, Indonesia  
street football league, Israel  
mondiale antirazzisti, Italy  
mathare united, Kenya  
grassroots football federation, Nigeria  
fargerik fotball, Norway  
football for peace, Rwanda  
national street soccer league, Singapore  
play soccer non-profit, Ghana/USA



The identified projects are working with football to promote healthy lifestyle (Georgia), prevent HIV/AIDS (Liberia), include young women into sport (Ghana, Rwanda), foster reconciliation (Burundi, Colombia), tackle crime (England) and social exclusion (USA, Germany, Russia) - just a few examples of the other dimension of the game. The position of football in this and many other projects worldwide is programmatically defined as a moderator variable in the youth development: shooting a goal is just a step to the social development of young people through football.

**streetfootballworld** is developing a global platform for these grassroots football approaches. The project implements an efficient internet portal as basic communication and information tool for project managers and meeting point for the participating youth and interested public in general. As a milestone for the permanent exchange of young participants and experts, a periodically celebrated **streetfootballworld** - Forum and Festival on a global scale will be established, for the first time in 2006.

These elements of the project are being developed to provide better facilities for the exchange of information and experiences in the day-to-day work of project managers, but also to promote their work in an appropriate way: through presentation of news and upcoming events on the website and through "real" events in the world of grassroots football. Regional and continental kick-offs and a Festival in the year 2006 as well as meetings of grassroots football researchers preparing the Forum 2006 are meant as highlights in a permanent process of creative project work and grassroots football action. Network structures and the Internet portal are established as an unique source of know-how accessible to everybody and basic for the efficient trans-national co-operation.

### **Vision of streetfootballworld**

**streetfootballworld** recognises and celebrates the role of grassroots football in society and supports the integral development of this sport, as complement to the associated football.

**streetfootballworld** is a facilitating and co-ordinating body for the world of grassroots football on a global scale, based on the principles of inclusiveness and diversity.

The upcoming FIFA World Cups, for the first time in Germany 2006, is thought to be the platform to integrate grassroots football - the other dimension of the game - as an important element, highlighting global responsibility and the need of a sustainable impact on the hosting nation/region as well as on the global (grassroots) football movement in general - a movement that is, based in the grassroots, modifying the football games today's youth are playing in order to provide them with the skills they need for life today.

Jürgen Griesbeck  
streetfootballworld  
Priesterweg 8  
10829 Berlin  
Ph: +49 30 78006242  
[griesbeck@streetfootballworld.org](mailto:griesbeck@streetfootballworld.org)

# Partner and Events

## Upcoming Events

*Don't forget to check the SIRC Conference calendar at:*

*<http://www.sportquest.com/resources/conferences/index.html>. This resource is updated weekly and includes for sport science events world wide. Following is a list of events under ICSSPE Patronage and/or planned by members of ICSSPE's Associations' Board:*

### **1st International Sport Countries Conference**

Barcelona (Spain)

3rd – 5th April 2003.

### **VII International Congress - Modern Olympic Sport and Sport for All**

May 24-27, 2003

Contact: Mikhail Zolotov

tel/fax: (+7) 095 166-92-38

[zolotov@sportedu.ru](mailto:zolotov@sportedu.ru)

<http://www.sportedu.ru>

### **WFAT World Congress**

May 26-27, 2003

Theme: Olympic to extreme: injuries in North American sports

Hotel Grand Pacific

Victoria, British Columbia

CANADA

For more information, call Helena at the Canadian Athletic Therapists Association on (403)509 -CATA (2282) or email her at [cata12@telusplanet.net](mailto:cata12@telusplanet.net).

### **2nd Word Congress of Sociology of Sport**

June 18 - 21, 2003

Sport and Social Order - Challenges for Theory and Practice

Cologne

Contact: Organizing Committee

Prof. Dr. Ilse Hartmann-Tews OR Bettina Rulofs

German Sport University Cologne

Fon: (+49)(0)221/4982-723

Fax: (+49)(0)221/4982-825

[issa2003@dshs-koeln.de](mailto:issa2003@dshs-koeln.de)

<http://www.dshs-koeln.de/issa2003>

### **II International Conference for Physical Educators (ICPE 2004)**

Date: 7-10 July 2004

Theme: The Global Perspective in the Integration of Physical Activity, Sport, Dance and Exercise Science in Physical Education - from Theory to Practice"

### **8th International Congress of the European Committee for Sport**

25 - 28 September 2003

Greece

Theme: Ancient and Modern Olympic Games: Their Political and Cultural Dimensions

Contact: Dr. Evangelos Albanidis

Democritus University of Thrace

Dept. of Phys. Ed. & Sport Science

Komotini, GR-69100 Greece

[cesh2003@phyed.duth.gr](mailto:cesh2003@phyed.duth.gr)  
<http://www.phyed.duth.gr/cesh2003>  
Tel.: +30-2531-039-663; ++30-2531-039-735  
Fax: + 30-2531-039-623

**International Conference on the Science and Practice of Rugby**

5 - 7 November 2003

[www.rugbystudies.com/conference](http://www.rugbystudies.com/conference)

**The Fifth International Conference on Sport, Leisure and Ergonomics**

November 19-21 2003

Cheshire, England

Congress Secretariat

Sport, Leisure and Ergonomics

Research Institute for Sport and Exercise Sciences

Liverpool John Moores University

Henry Cotton Campus, 15-21 Webster Street

Liverpool, L3 2ET

England

Telephone: 0151 231 4088

[K.George@livjm.ac.uk](mailto:K.George@livjm.ac.uk)

**Annual Summer Institute of the Institute for Olympic Education University of Alberta, Canada**

Cultural and Curriculum Issues in Olympic Education: Theory and Practice for the 21st Century

**Dates:** Monday – Friday, July 7-11, 2003 — 8:30 AM to 4:30 PM

Join educators from around the world as they explore and share the theory and practice of converting Olympic values such as fair play, international understanding and participation in physical activity and sport into interesting and useful educational programs for children and youth.

The activities of this five-day intensive Summer Institute will be organized around four theme days and one day of travel to the facilities of the 1988 Olympic Winter Games in Calgary.

The four in-class days will feature keynote presentations, workshop sessions and study groups on the following themes:

**Day 1:** Olympic Education:

**Day 2:** Movement Pedagogy

**Day 3:** Enabling Participation and Excellence

**Day 4:** Physical Activity and Sport For All Day 5: Cultural Difference

For further information contact:

Dr. Deanna L. Binder

Director Institute for Olympic Education

845 Education South University of Alberta

Edmonton, Alberta CANADA

T6G 2G5

[dbinder@ualberta.ca](mailto:dbinder@ualberta.ca)

## Report of the 3rd international scientific conference “Kinesiology - New perspectives”

Zeljka Jaklinovic-Fressl  
Faculty of Kinesiology  
University of Zagreb, Croatia

The third international conference “Kinesiology - New Perspectives” was organised and hosted by the Faculty of Kinesiology University of Zagreb, Croatia, September 25-29, 2002, this time in the Hotel Adriatic Convention Centre in Opatija, under the high patronage of the Croatian Academy of Sciences and Arts. The conference has obviously grown from its modest origins back in 1997 (in Dubrovnik) to a respected meeting of researchers and professionals from Croatia and abroad whose areas of scientific interest pertain to various fields of kinesiology (sport & exercise sciences) and adjacent scientific fields. More than 340 delegates contributed to, and participated in, a three-day conference of plenary and parallel sessions and poster displays.

Ten keynote lectures were presented in five plenary sessions: Challenges in optimising human sport performance by Erich Müller; School PE and sport in Europe: rhetoric and reality - current and future perspectives by Kenneth Hardman; The need and value of collaboration of multiple partners in national and international promotion of Sport for all by Ilkka Vuori; From analysis to coaching by Mike Hughes; Adaptation in sport by Atko Viru, Secular changes in sport by Jan Borms; Contemporary sport psychology by Matej Tušak, Biomechanical properties of tendons by Jozsef Tihanyi; Science dealing with human movements - the meaning, the term, the course of development by Wodzimierz Starosta, and Kinesiologists: raiders for the lost paradigm by Roland Renson. The communications were well received by the full audiences and enjoyed by all, irrespective of individual scientific interest.

Eleven speakers were also invited to give introductory lectures in most thematic sessions: the session on **Top level sport** invited Toivo Jürimäe (*Morphological aspects in sport and health*), Bojan Jošt (*Expert system for talent evaluation from the longitudinal aspect*), Maria Bulatova and Vladimir Platonov (*Main directions in optimising the Olympic preparation system*) and Kenneth Swalin (*Bridging the gap between sport science and coaching*). The **Physical education** section invited Janko Strel (*Selectivity and individualisation within the curricula - a basis of further development of school sport*). The **Research methodology** section invited Arnold Baca (*Methods for analysing human movement in game sports - potential and limits*) and Bojana Dalbelo Bašić (*Artificial neural networks and advanced supervised learning techniques*); the **Biology and medicine of sport and exercise** section invited Katarina T. Borer (*Health impact of training intensity in older individuals*); the **Management in sport and tourism** invited Zoran Jašić (*Globalisation and sport*) and Boris Vukoni (*Management - the necessity in tourism and sport*). The **Biomechanics** section invited Vlasta Zanchi (*Biomachanical analysis of human gait*) and Mario Cifrek (*Electromyography in muscle fatigue evaluation*). All the invited speakers highlighted the states-of-the-art and probable courses of development of particular fields of their interests. The presentations were enthusiastically received by the delegates and accomplished their aim of stimulating debate and furthering knowledge.

Oral communications (91) and poster presentations (97) within the already mentioned themed sections, as well as within the Psychology of sport and Sport for all, fitness and health related activities, adapted physical activity sections were available for those who had papers accepted after peer review. The process of reviewing contributions and setting a programme is a demanding task. The section chairs (Mirna Andrijašević, Mato Bartoluci, Ksenija Bosnar, Romana Caput- Jogunica, Branka Matkovic, Vladimir Medved, Dragan Milanovic, Marjeta Mišigoj-Durakovic and Nataša Viskic-Štalec) and the president of the Scientific Committee Franjo Prot were responsible for selecting reviewers and coordinating reviews in their area. Each reviewer provided feedback on a number of papers in a very short time. The president of the Organising Committee Dragan Milanovic expresses his gratitude to the invited speakers who also willingly served as the members of the Scientific Committee and reviewers, as well as to the rest of the comprehensive team of international reviewers.

The social programme was also rich and enthusiastically attended by most participants. Maybe too little time was left for less formal modes of interaction. The organiser managed to publish the proceedings book and CD prior to the conference and each participant was provided with a copy with 217 conference contributions.

The conference revealed all the impressive diversity and strength of our field of science(s) and emphasized its interdisciplinary and multidisciplinary nature. We hope that the noticed growing trend in participation rates and in quality of contributions and debate will be continued throughout the future conferences which are going to be held in a “triennial-cycle-periodization” rhythm.



Zeljka Jaklinovic-Fressl  
Faculty of Kinesiology  
University of Zagreb, Croatia  
[zjaklin@ffk.hr](mailto:zjaklin@ffk.hr)



## 23rd International Council for Physical Activity and Fitness Research International Sport Science Symposium

*(5. - 8. September, 2002, Tartu, Estonia)*

*Jaak Jürimäe, University of Tartu, Estonia*

The International Council for Physical Activity and Fitness Research (ICPAFR) - founded in 1964 - has the tradition to organise an international symposium biennially. This year, the ICPAFR's 23rd International Sport Science Symposium was organised in Tartu, Estonia with the topic "The Measurement and Testing in Physical Fitness, Physical Activity and Health: New Perspectives". The host of the Symposium was the Faculty of Exercise and Sport Sciences, University of Tartu, Estonia, under the chairmanship of Prof. Dr. Toivo Jürimäe, who is a well-known specialist in the area of sport pedagogy and kinanthropometry. The University of Tartu, founded in 1632, is one of the oldest universities from in the world, and the Faculty of Exercise and Sport Sciences is known as one of the leading institutions in sport sciences from former Soviet Union and East-European countries. Within the history of the ICPAFR, it was the first time that a former socialist country has hosted this prestigious symposium.

The topic of this symposium was chosen to reflect new perspectives of measurement in different areas of physical fitness, physical activity and health as one of the main objectives of the Council among others, such as: 1) the standardisation tests in physical fitness and the assessment and measurement of physical activity; and 2) encouraging research based upon the standardised tests and measurements.

About 80 participants from over 20 countries participated in this symposium (see photo). Key-note speakers of this symposium were experts in their respective areas from all over the world. Dr. Neal Armstrong (Exeter, UK) talked about the anaerobic fitness and anaerobic performance during childhood and adolescence. Dr. Don Bailey's (Saskatchewan, Canada) topic was "Physical activity and bone strength: old and new perspectives". Dr. Andrew Hills (Queensland, Australia) presented a paper in the area of childhood obesity: "Obese children and adolescents: gait issues". Dr. Raija Laukkanen's (Helsinki, Finland) topic was connected with the presentation of the validity of the supervised and self-administered UKK-test for predicting maximal oxygen consumption. Dr. Paavo Komi also from Finland (Jyväskylä) talked about eccentric and concentric contractions, with the presentation entitled: "Is eccentric exercise more fatigable than concentric exercise?". Finally, Dr. Jim Sallis (San Diego, USA) presented new findings in the area of physical activity assessment: "Presenting and measuring youth physical activity throughout the school day: project M-SPAN".

Abstract and proceeding books were printed before the symposium and include all presented oral and poster papers. The Proceeding Book was printed as a supplement of the annual research book of the Faculty of Exercise and Sport Sciences, within the series of the *Acta Kinesiologiae Universitatis Tartuensis* (volume 7, 2002). The editors were the main organisers of the symposium, Dr. Toivo Jürimäe and Dr. Jaak Jürimäe. In total, 43 peer-reviewed articles were included to the Proceeding Book. Within the series of the ICPAFR-symposia, printing a proceeding book as a result of the symposium is a traditional event.

"The 23rd ICPAFR Symposium in Tartu, Estonia was organised at the high level and presented papers were also excellent" as said by ICPAFR's president, Prof. Dr. Albrecht Claessens from the Katholieke Universiteit Leuven, Belgium. This Symposium was organised under the patronage and financial support of ICSSPE. The organisers would like to thank all participants and all those who helped to organise this very prestigious event at the University of Tartu, Estonia.

Jaak Jürimäe, PhD  
Chair of Sport Pedagogy  
University of Tartu  
18. Ülikooli St.  
University of Tartu  
Tartu 50090  
ESTONIA  
[jaakj@ut.ee](mailto:jaakj@ut.ee)



## Congress for Harmonisation of Anti-Doping Policies and Procedures in European Sports for Athletes with Disabilities - Conclusions and Recommendations

(August 31st - September 1st 2002, Bratislava, Slovak Republic)  
Hans Lindström, Swedish Sports Organisation for the Disabled

### Conclusions and recommendations

#### Considering,

that athletes with disabilities in too few countries are included to a full extent in national doping test programmes,

#### Referring to,

a recent survey by IPC showing that a significant number of NPCs in Europe still do not have a written anti-doping policy, and

#### Recognising that,

this poses challenges:

- or NPCs in education and implementation of policies and national resources for intensified testing
- for WADA in the areas of out of competition testing, support to developing countries, and support to general anti-doping initiatives in sports for athletes with a disability,

### The Congress declares

- **That Athletes with a disability should have the benefit of the same anti-doping programmes as other elite athletes sooner rather than later. The overall goal is to have greater parity between Paralympic and other sports. In order to make considerable progress for Paralympic anti-doping efforts, a more comprehensive approach to doping for athletes with disabilities is necessary, including out of competition testing.**
- **Its support for the World Anti Doping Code (the Code) being accepted by the Paralympic Movement, and**

### recommends

#### • That

**-IPC/NPC should be included whenever IOC/NOC are mentioned in the Code \***

**(\* the responsibilities of IPC include dual roles, i.e. the Paralympic Games and as an IF for sports under IPC governance)**

**-IPC should require from NPCs to implement on national level anti-doping policies and programmes as a requirement to compete in Paralympic Games**

**-IPC should take a leadership role in communicating with all NPCs to initiate action with the aim to assist nations in complying with the Code.**

However, in the process of accepting the Code, the Congress finds it **necessary that WADA clarifies “acceptance” and the commitment that comes with it.** Broad understanding is vital for leading to acceptance of the Code.

### The Congress further calls for initiatives

- **by Governments, National Anti-Doping Agencies (NADA), National Sports Confederations / NOCs, and NPCs to:**
  - **educate relevant personnel in the particulars in doping testing of athletes with disabilities,**
  - **include athletes with disabilities in national doping test programmes,**
  - **encourage research in doping in sports for athletes with disabilities.**

by IPC to:

- review the IPC Medical & Anti-Doping Code according to the recommendations of the Congress,
- establish an out-of-competition programme in cooperation with WADA, and
- provide leadership and assistance to the NPCs and other affiliates for them to comply with the Code;

## **Specific Congress recommendations**

### **Recommendations concerning compliance with the World Anti-Doping Code**

- IPC to catalogue the needs for assistance to NPCs in order for them to comply with the Code.
- Recognising that there are obstacles to compliance of the Paralympic movement (lack of sufficient resources, different levels of compliance, etc), flexibility is crucial.
- Development of agreed standards for compliance with the Code and an agreed process of monitoring/auditing organisations, and that these agreed standards to be part of the Code.
- The requirement in the first draft of the Code for commitment to comply with pre-determined deadlines might need to be reconsidered in order to allow for differences in the ability for adopting and applying the Code.

### **Recommendations concerning needs for education**

- Education of athletes, staff, medical personnel and other athletes support personnel in the Code should be organised.
- Co-operation for NPCs and NOCs regarding education should be formalised.
- Educational material on the specifics in doping control requirements for athletes with disabilities should be initiated by EPC and IPC and provided to NPCs for dissemination to national anti-doping agencies.

### **Recommendations concerning testing programmes**

- Increase out of competition doping controls in the Paralympic Movement.
- At a minimum there should be requirements to test athletes out of competition before Paralympic Games.
- IPC or WADA could weigh their testing programmes to countries with no/less developed programmes.
- While the perceived major differences between testing athletes with disabilities versus able-bodied athletes are exaggerated, standards and models of best practice to be developed must take into account disability specific issues.

### **Recommendations concerning cross reporting**

- IPC and NPCs should be included in the reporting of athletes with disabilities who tested positive, and WADA will be informed automatically. This will require generic doping control documentation.
- WADA ought to establish a Clearing House for all testing, including IPC/NPC.

### **Recommendations concerning rules differences IPC-NADA/NPC**

- Possible differences in anti doping rules between NADA/NPC and IPC need to be assessed and monitored.

### **Recommendations concerning optional sanctions and sanctioning of sporting bodies**

- There is a need for further reflection on the use and scope of optional sanctions and sanctioning of sporting bodies.
- Should sanctioning of sporting bodies be considered, the following should apply:

- An official warning should always be issued before the sanction.
- More accurate definition of “repeated violations” is needed.
- All violations under article 8.1.1. in the Code should apply.

### **Recommendations concerning assistance to countries lacking Anti-Doping policy/programme**

- Any assistance that increases understanding is a very positive first step. Communicating and education about the purpose and content of the Code is essential.
- Avoid re-inventing the wheel. Adapt successful programmes or materials to suit different needs in other countries.
- IPC should catalogue the needs for assistance; such needs may be for expertise, for policies, for sample collection or analysis or for financial assistance.
- Match countries that can provide assistance for those specific needs.
- Experienced NPCs should mentor other NPCs that need help and countries with well-developed programmes should seek partnership on testing in other countries.
- Testing international bodies i.e. IPC or WADA could weigh their testing programmes to athletes from countries with weaker programmes.

### **Recommendations concerning research**

- Research is needed on understanding doping by athletes with a disability (is it different from able-bodied elite athletes, same substances, same sports and events, same nationalities, same motivation for the use of doping?).
- Research is needed on boosting [technical term -autonomic dysreflexia].
- Co-operation of sports research and other research should be sought, especially in the area of genetic manipulation.
- Research results to be published widely in different languages and to be easily accessible on web sites.

### **Comments, suggestions and observations**

arising from Plenary Sessions at the Congress

In addition to the Conclusions and Recommendations of the Congress, a number of comments, suggestions, and observations on the various issues came forward. These are listed here under the headlines of the particular presentations, workshops, or sessions where they were put forward.

#### **1. Presentations**

***Harmonisation Work by WADA and Proposed World Anti-Doping Code***, by Mr. Tom Dielen, Director of Sports Liaison WADA European Office.

- In referring to the assumption that in general, countries are willing to comply with the Code but may in some cases have no funds available to set up a comprehensive national anti-doping programme, the question was raised whether WADA would provide financial assistance for countries to comply with the Code. It was reported that WADA recognised the need for assistance to comply with the Code and intended to act as facilitator for various projects such as solidarity campaigns and a partnership programme. However, financial assistance from WADA itself was not likely.
- On the question how WADA intends to monitor compliance with the Code, it was reported that WADA is presently studying how to implement a monitoring process. It was indicated that a checklist would be developed. Together with the organisation concerned, WADA will evaluate every point on that list and monitor compliance, step by step. The monitoring process will take place in close co-operation with the organisation concerned. Reference was further made to the possibility to appeal to CAS against any decision.

**Good globalisation: Anti-Doping Progress for the Paralympic Movement**, by Mr. Joseph de Pencier, Director Sport Services/General Counsel of the Canadian Centre for Ethics in Sport, and Chairman of the independent observers WADA.

- In observations made during WADA Independent Observers' Programme during the 2002 Winter Paralympic Games in Salt Lake City, it was reported that the athletes' did not question or challenge the doping control authorities even when obvious mistakes were made. As this points to lack of education and awareness of the rules, an appeal was made for more education and for promoting self-advocacy of athletes.
- The observation was made that the Paralympic movement has presently no athletes who radically advocate for a drug free environment like is the case in sports for able bodied. It was stated that Paralympic athletes must be encouraged to talk about the importance of a drug free environment.
- On the question on the quality of the IPC doping testing system and procedures as experienced by the WADA Independent Observers programme conducted during the Paralympic Games in Salt Lake City, Mr. de Pencier confirmed that IPC and its athletes can rely on having an effective and good doping control system in place. The IPC recognises that athletes desire more testing to be done.

**The Appeal to the Court of Arbitration to Sport**, by Mr. Mathieu Reeb, Secretary General, Court of Arbitration of Sport.

- It was reconfirmed that also the article 8.9.2 of the first draft of the Code concerning the right to appeal to CAS should be made applicable to the IPC and the respective parties within the Paralympic Movement.
- On the question raised whether the Paralympic Movement has any role to play in nominating individuals to the CAS panel of arbitrators, it was reported that there are no provisions in the current rules that allows IPC to nominate arbitrators for appointment to the CAS panels. Mr. Reeb suggested that IPC might wish to consider making such recommendation to CAS.

**The Role of Laboratories in Assuring Reliability in Sports Drug Testing**, by Ph.D. Jordi Segura, Anti-Doping Laboratory Barcelona, member of subcommittees in the IOC Medical Commission and WADA.

- On the question on what basis WADA is developing the list of banned substances, it was reported that WADA had submitted a first draft to the IOC. As a first step WADA had only considered performance-enhancing drugs, however, in the future also other aspects such as the effect on health, will be taken into account.

**Challenges for the Paralympic Movement**, by Dr. Björn Hedman, IPC Medical Officer.

- The question was raised whether IPC has any control over NPCs to evaluate their commitment for doping testing in the own country? It was recognised that although according to the IPC Medical Code, NPCs are required to develop an anti-doping policy, there is no structure in place that allows IPC to control compliance to this requirement.
- It was recognised that in most cases national sports organisations have to comply with anti-doping programmes imposed by their respective Government and that in many cases in Europe the NPCs are included in those national programmes. However, IPC does not know how many NPCs worldwide that are part of, and included in the national mandatory requirements for anti-doping programmes. NPCs are comparable to national sports organisations, they are NGO's receiving government support and should therefore have to comply with national legislation on doping. It was confirmed that it would be the most natural thing for an NPC to turn to the NADA or to the National Sports Council/NOC, rather than to IPC. IPC should encourage national doping agencies to include NPCs and national organisations for sports for athletes with disabilities in their programmes. Neither IPC nor the NPCs have the resources to set up separate national programmes. Testing of athletes with disabilities must be included in the NADA policies and programmes. In addition, a better link between the National Sports Confederations/NOCs and NPC must be established to co-ordinate national doping programmes.

## 2. Workshops

### General Background for the Workshop Session

A general question for consideration by the workshops was concerning possible IPC approval in principle of the WADA Draft World Anti-Doping Code.

The International Paralympic Committee (IPC) has (so far) two separate roles:

- a) Ownership and governance of the Paralympic Games,
  - b) Governance of 14 different sports/disciplines of which many but not all also are Paralympic sports.
- (Discussion about future structure changes indicates the possibility that the governance of sports may be removed from IPC responsibility.)

The Paralympic Games include sports that are under the governance of four different categories of international organisations:

- i.) IPC,
- ii.) International member organisations (IOSD) of IPC governing different disability categories,
- iii.) International Federations for a specific sport for athletes with disabilities (Paralympic IFs),
- iv.) International Sports Federations (IF) with sections for athletes with disabilities (Olympic IFs).

IPC rules on doping apply to the Paralympic Games, the 14 IPC sports/disciplines, and the member organisations of IPC (National Paralympic Committees [NPC] and IOSD).

IPC respects sanctions for doping infringements decided by other organisations not under IPC jurisdiction when they concern athletes with disabilities.

### **Workshop no 1. Procedures for cross reporting on positive cases and jurisdiction for sanctions**

Moderator: Mr. Tom Dielen, Director of Sports Liaison, WADA European Office

#### Background:

Many athletes with disabilities participate both in competitions for disabled and in competitions for able bodied. They may either represent a club affiliated both to the relevant national federation (NF) for sport for disabled and to the NF for the specific sport. Competitions can be either international or national. There are no formal procedures for cross-organisational dissemination of information on positive doping tests.

#### Comments

The issue of optional sanctions (additional sanction on top of standard sanction) need further debate but also the application of the standard sanction may need review to allow more flexibility with regards to timelines. It was suggested that when applying the two-year sanction, this must be made in relation to the timing of the next major competition. Reference was made to the fact that the Paralympic Movement has not that many major competitions on its schedule compared to able-bodied competitions. An athlete guilty of an infringement should at least lose the opportunity to compete at the next important competition.

### **Workshop no 2. Differences in anti-doping rules between nations and IPC**

Moderator: Dr. Jordi Segura, Director Antidoping Laboratory, Barcelona;

Secretary, Sub-commission Doping & Biochemistry, IOC Medical Commission; Member, Standards & Harmonisation Commission, WADA

#### Background

IPC stipulates that doping controls shall be made at International Paralympic Committee (IPC) sanctioned events. IPC procedures must be adhered to. National Paralympic Committees (NPC) and International Organisations for Sports for Disabled (IOSD) that are members of IPC are required to follow IPC Doping rules. However, NPCs are also required to follow national rules. National procedures for doping control can be

slightly or even significantly different from IPC. There is no system in place to ensure that conflict of rules is avoided.

#### Comments

- IPC & NPCs must be mentioned throughout the Code and reference must be made in the Code to the double role of IPC acting also as an IF.
- With regard to that dual role of IPC it must be evaluated whether there are any legal implications when conflicts of interest arise for IPC acting as both a judge and prosecutor. Does IPC have the legal basis to act in dual roles? Does that reflect abilities to separate both responsibilities?
- It was understood that the Compliance standard is based on the roles and responsibilities of the different parties. The question was raised whether IPC is expected to comply with both standards for both its dual roles. IPC should provide WADA with input on what the perceptions of its role is, and compliance to the Code should be compatible with IPCs present responsibilities. If those responsibilities change in the future, and a new structure is established, the necessary adaptations to comply with the Code will have to be made at that time.
- It was reported that within the UK research had been conducted on the need to modify testing procedures. The finding was that there are very little differences between testing able-bodied and testing disabled athletes. The different needs were identified and procedures had been outlined and published in a leaflet; all information had been made available on website. Training was offered to doping officials and an education strategy was developed both for able-bodied and disabled athletes. Delegates recognised that this was an example of good practice that could be adapted and implemented in other countries.
- Although the workshop group had lacked the time to discuss the Medical Advisory Process (MAP) it was recognised as being very important. The MAP gives the opportunity for an athlete to apply for exemption for taking a forbidden drug for medical reasons. In connection to relevant articles in the Code dealing with granting exemptions, reference should be made to the MAP process and procedures. The differences must be clearly outlined (disability/age) that lead to differences in use of therapeutic drugs. IPC should inform WADA that it will establish standards for therapeutic use.
- Reference was made to the overall willingness of the Paralympic movement to comply with the Code and to the difficulties that will raise in trying to comply with the Code within the set timeframe. It was suggested that WADA may need to reconsider going back to the original concept and have three levels of commitment to the Code; this to recognise the different capacities to adopt and apply the Code (levels ranging from a commitment in principle, to a level of full compliance with the Code).

#### ***Workshop no 3. Should collective punishments (The Code: sanctioning of sporting bodies) be imposed?***

Moderator: Dr Josep Antoni Pascual, Antidoping Laboratory, Barcelona; Member of IPC Medical Committee & Anti-Doping Commission

#### Background

IPC has experienced concentrations of positive cases in a particular sport and with athletes from some particular countries.

Should a particular sport, or country, or IOSD be barred from the Paralympic programme if subject to frequent cases of positive doping tests? In case of an IPC governed sport, should also World and Continental championships programmes be discontinued?

#### Comments

- In respect to the sanctioning of sporting bodies and the statement that innocent athletes should not be punished, it was questioned whether fines could be considered as a fair alternative to sanctioning participants. It was suggested that levying fines may on the contrary be the least fair way of sanction because paying the fine would not be a problem for rich sporting bodies whereas for other federations finding the funding for the fine could be a major problem and block their future development.
- It was stated that the term “repeated violation” used in the Code need to be clearly identified. It was

reported that there is presently no consensus among the IFs on what the number of violations should be to identify the term “repeated violation”.

WADA would welcome the input from IPC on this. It was recognised that not only the number of positive cases but also the number of testing must be considered (more testing, leads to more detecting of the positive cases). The ratio of the number of doping tests in relation to positive cases plays an important role and must be taken into account.

***Workshop no 4. In which way(s) can nations that don't have anti-doping policies/programmes in place be assisted or forced to establish such policies/programmes?***

Moderator: Mr Joseph de Pencier, Policy Advisor to the Canadian Centre for Ethics in Sport; Chairman of the Independent Observers, WADA

**Comments**

- The importance was stressed that full understanding of the Code and its implications should be assured for countries to be in a position of complying with it. Official translation in several languages is needed. The suggestion was made for WADA to consider other publication styles to meet the needs of persons with disabilities e.g. audio-tapes/high visibility format.
- There was consensus that making compliance with the Code a requirement, is the right road to take. The Code should be prescriptive. However, assistance and positive measures are needed rather than enforcement.

**3. Round up discussions**

- The need for a co-ordinated approach in providing assistance with the aim to eventually achieve compliance by all member nations was stressed. Rather than each country building up its own partnership or mentor programmes IPC or its Regional Committees must take on that co-ordinating responsibility and facilitate this process. IPC cannot implement this from the top down, it must be an interactive process with NPCs sharing the work with others.
- It was reconfirmed that co-ordinating activities with national authorities is the most efficient way. An appeal should be launched to Governments, NOCs and NADAs to assist in the process and ensure equal treatment for able-bodied and disabled athletes. (cfr Bratislava declaration 2000 by East European nations)
- The importance was stressed to educate athletes on doping policies and procedures and to include education on health and ethical aspects. In closing the session it was mentioned that it is more useful to invest money into education rather than into dope testing.

Hans Lindstrom  
Swedish Sports Organisation for the Disabled  
Idrottens Hus  
SE-12387 Farsta  
Sweden  
[halinds@attglobal.net](mailto:halinds@attglobal.net)

## The EU's Anti-Doping Policy and its Relevance to Disabled and Able-Bodied Sports

*Jacob Kornbeck  
Administrator, European Commission  
Directorate General for Education and Culture, in Brussels.*

The following texts combine the revised and annotated version of the welcome speech and Epilogue by Jacob Kornbeck held at the Congress for Harmonisation of Doping Policies in European Sports for Athletes with Disabilities, 31st August - 1st September 2002, Bratislava, organised by the International Paralympic Committee (IPC) and co-financed by the European Commission as pilot project 20/24 (2001-2002).

### **Workplan of this conference**

Under last year's Call for Proposals, the European Paralympic Committee won a contract with a view to prepare and organise this Congress. Judging from EPC's project proposal, it promises to be an interesting event: The question of how best to align anti-doping work targeting disabled sportspersons will be discussed here by experts and stakeholders alike.

It was decided to include the World Anti-Doping Agency (WADA) in this work and to base large parts of our discussions on WADA's draft World Anti-Doping Code. The young Agency and its emerging Code have started many discussions which we would probably not have imagined just a year ago. The draft Code was presented to the public after the application to hold this event had been lodged and has become a major topic within the international community of anti-doping work. I am pleased that the organisers decided to include the Code in this Congress, knowing very well both the opportunities and the challenges which this approach involves.

The objective is indeed ambitious: to develop a "Declaration of Commitment" which should act as a model for future co-operation.

### **Paralympic versus Olympic sports**

At this Congress, it is truly exciting to witness the diversity of sports as evidenced through the differences between Paralympic and Olympic sports. Such comparisons can provide entirely new angles on sports - a change of perspective which is much needed, given the way in which society's mainstream concentrates most of its interest on able-bodied sports. And not only are most people only interested in able-bodied sports - in fact, they are only interested in a small segment of able-bodied sports. The proportion of TV programme time dedicated to soccer as opposed to other disciplines is in that respect highly revealing.

In this context, disabled sports are an important alternative and for someone like me, who knows as much - or as little - as the average citizen about them, sports for the disabled allow us to take a fresh look at sport. Sometimes, it looks like sports which haven't - yet - lost their innocence. We know that, alas, this is not always true, as recent positive cases in doping controls performed on Paralympic athletes have shown. Still, Paralympic sports are different and provide stimulating inspiration. Today and tomorrow we shall look into the specific paralympic doping issue.

### **Mainstreaming and inclusiveness in Paralympics and anti-doping policy**

With these ideas in mind, I would like to underline the need for mainstreaming. For despite the specificity of the questions raised here, we must bear in mind the embeddedness of disabled people in society and, likewise, of disabled sports within the totality of sports.

Mainstreaming is an important goal in politics targeting the disabled. Mainstreaming is also a matter of urgency in international anti-doping work as it strives for the unity of lists, rules, procedures and practices. The presence of so many WADA representatives here - representing an Agency which does not have a mandate specifically for disabled sports - should be a sign, I think, that the Congress, despite its focus on Paralympics, refuses to glide into seclusion and forget the larger context.

Mainstreaming is in the interest of all. Both disability policies and anti-doping policies should aim to be truly universal. Mainstreaming is also in the interest of sport if it wants to represent most, or all of society. In the words of B. Sevelius (2000), 'Sport cannot speak of "sport as an important part of society" if we have no intention to present, offer and develop sport as an activity available to most of the people' (pp. 6). This quote



represents the common interest of disability policies, anti-doping policies and sport in general in striving for inclusiveness and resisting all tendencies towards seclusion, sectarianism and segregation.

## **Epilogue: Doping is a Societal Problem in Europe**

I am impressed by the ease with which the Declaration has been voted, given that it refers largely to WADA's draft World Anti-Doping Code and I suspect this document is likely to give rise to reserves and maybe reticence in other fora. On reflection, I have come to believe that this is due to both structural and ideological differences between Paralympics and Olympics.

With respect to structural differences, the much higher levels of professionalisation and commercialisation in able-bodied sports mean that the 'Play the Game' argument does not suffice to legitimise serious sanctions against doping. One consultancy report commissioned by the European Commission, based on a review of literature into the history of doping, pointed to professionalisation and commercialisation as the main factors creating a doping-prone environment (KPMG, 2002). In this respect, differences between Paralympics and Olympics should be quite evident.

Then to ideological differences. In Workshop No. 4, dealing essentially with Article 4, section 1, of the draft Code (Acceptance of the Code - see figure 1) - the workshop which I participated in - I heard very few critical voices, indeed sometimes I had the feeling that I was playing the Devil's advocate with my observations, and I heard the argument that 'those who won't accept the Code don't have to participate' [not a verbatim quote]. Many able-bodied athletes are workers and their financial and socio-cultural welfare is seriously affected by sanctions which may interrupt their careers or, in some disciplines, even bring them to an end. In a number of jurisdictions, these implications are likely to prompt public authorities to take a very sceptical stance towards the Code. I reckon that there are important differences between public authorities - the side which I know best - and sports organisations, but it also seems that the degree of feasibility within Paralympics, as opposed to Olympics, might be different. In any case, I would recommend that the Paralympic movement, despite its enthusiasm, which I admire, keep an eye on the development of the consultation procedure launched by WADA as far as the Olympic system is concerned. A Paralympic pledge to implement the Code cannot stand alone and must take account of developments in wider fora. This also applies to the highly problematic Article 4, section 1, which in my opinion could be the most critical part of the entire text.

Excerpt from The World Anti-Doping Code, draft Version 1.

### **4.1 Acceptance of the Code**

4.1.1 Athletes, including minors, and athlete support personnel are deemed to accept the Code by virtue of their participation in competitive sport.

4.1.2 The International Olympic Committee, International Federation, the International Paralympic Committee, National Olympic Committees, other International sport Organizations, and National Anti-Doping Organizations shall accept the Code by signing a common declaration of acceptance upon approval by each of their respective governing bodies.

4.1.3 Governments shall accept the Code by execution of [a Memorandum of Understanding] [an International Instrument] [To be developed by governments before February 2003.]

4.1.4 Other bodies that demonstrate a defined mandate and responsibility for anti-doping may accept the Code by signing a common declaration of acceptance upon approval by their respective governing bodies.

4.1.5 Beginning with and including the Olympic Games in Athens 2004, acceptance of the Code by both its national Olympic Committee and government shall be required for a country to host Olympic Games, Olympic Winter Games, or world championships.

4.1.6 Beginning with and including the Olympic Games in Athens 2004, acceptance of the Code by its National Olympic Committee shall be required for a country to participate in Olympic Games, Olympic Winter Games, or world championships.

4.1.7 A list of all acceptances will be published on the WADA web site and in publications selected by WADA to provide broad exposure.

**Figure 1.** Acceptance of World Anti-Doping Code (WADA, 2002).

The structural aspect of doping and the need to relativise the role of the individual athlete are therefore extremely important. In addition to this observation, which is fuelled mainly by my concern over individual athletes' rights and the rule of law in an environment where individual responsibility may be a rather fictitious affair, I would like to emphasise how much I appreciated it every time I heard someone point to the presence of doping outside the sports world. The emergence of a 'doping society' in which normality is reinforced by various substances because students want better grades or workers want to better perform is a case for concern and deserves to be treated by futurologists. Research from Italy (C. Pesce and S. Donati) indicated that 4.5% of boys and girls at age 11 take creatine while the figure for the 13-year olds is even more alarming: 12% [sic]. These data were reported at a conference in Copenhagen earlier this year and a Danish doctor was quoted saying that similar trends could be observed in Denmark<sup>2</sup>. Such behaviour is not driven by the motivational strands inherent to sports, indeed some young people seem to take nutritional supplements just as part of a particular lifestyle.

This artificially reinforced normality is a serious societal problem and may be the main reason why the European Union has a policy on doping substances and practices. Were doping only a question of fair play, then concern and action at the European level would, under the principle of subsidiarity, hardly be legitimate. But it is far more: doping is dangerous and doping affects large populations - among these are many people who are particularly fragile, either because of their position within given group structures, or due to their age, or on account of both of these. This is what B. Houlihan (1998) called people 'dying to win'. It is in fact largely because of those aspects, which are not sport-specific, that the EU has an anti-doping policy.

### **The history and justification of the EU's anti-doping policies**

Both the problems of the disabled and the fight against doping are being tackled at the European level, in addition to the work done at national and local level, within the statutory sphere and by civil society alike. Linking them in a framework like this congress seems a very natural thing indeed. For the commitment of the European Union to the fight against doping is motivated largely by the social and societal aspects of doping - those which are not sport-specific. Much of the Community's sport-related policies can be described as concerned with social inequalities in sport and how best to reduce these.

The fight against doping became an EU issue twelve years ago when the Council and Representatives of the Member States, in their Resolution of 03.12.1990 (3), noted that "the use of drugs, including the abuse of medicinal products, which is damaging to health, is increasingly prevalent in Europe, particularly in sport". Since then, ministers and even the heads of state and heads of government have adopted various texts stressing the need for action at European level. In 1999, the Commission presented a 'Community support plan (4) designed to provide the right amount of European added value in the fight against doping, while fully respecting national competences in the field of sports. Should there still have been any doubt about the legitimacy of such policies, then the European Parliament gave the text a very warm welcome. In its report (5), Parliament noted that sports doping "has become an international business run by well-organised criminal networks" and called on the Commission to take a number of measures (the list below is not exhaustive):

- include doping in its public health policy;
- include doping in its research policy ;
- urge the IOC to review its list of doping substances ;
- inform Europe's citizens - especially the younger ones - about the dangers of doping ;
- strive for greater coordination of policies on doping in sport;
- fund pilot projects to promote the fight against doping.

Thus, Parliament has shown high expectations as regards the Commission's commitment to inspire, promote, fund and lead the necessary coordination. The last invitation I quoted is the justification for grants like the one made to the project group responsible for this Congress.

The specific problems related to Paralympic sports fit well into this thinking since it is very much concerned with disability as a social - and not a physiological - category.

### **Relevance to enlargement**

The social dimension must not be forgotten, and this is especially true in the present Member States' and the Community's dealing with candidate countries: Economics must not get the last word. The recent study by Langewiesche & Tóth (2001) analysing the political, economic and social dimensions of enlargement was in

this respect timely and highly relevant. Enlargement offers huge business opportunities while at the same time important social hazards are possible. We should see enlargement as a chance to look into social problems of many kinds, of which the relationship between disabled and able-bodied citizens is a good example.

Sport provides good case-studies for such discussions and indeed the Community's sport policy has always taken into account both the economic and social aspects of sport (See Andreu, 2002). In the case of doping in disabled sports, the organisers had noted a general lack of written policies in candidate countries and concluded that this Congress could be a catalyst for change.

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(2) Reported by the magazine of the Danish sport federation DGI, Ungdom & Idræt, in its issue No. 4/2002. An earlier report was printed in No. 5/2001. The international scientific symposium on nutritional supplements referred to was organised in Copenhagen on 25 January 2002.

(3) Resolution of the Council and of the Representatives of the Governments of the Member States, meeting within the Council of 3 December 1990 on Community action to combat the use of drugs, including the abuse of medicinal products, particularly in sport. In: Official Journal of the European Communities, No. C 329 of 31.12.1990

(4) COM (1999) 643 of 1 December 1999 : Communication on Community support plan to combat doping in sport.

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Jacob Kornbeck  
Administrator  
European Commission  
Directorate General for Education and Culture  
Sport Unit  
B 100, 5/41  
B-1049 Brussels  
Tel.: +32-2-29-62778  
[jacob.kornbeck@cec.eu.int](mailto:jacob.kornbeck@cec.eu.int)

## UNESCO Round Table of Ministers of Physical Education and Sport (Paris, January 9-10, 2003)

The first Round Table of Ministers of Physical Education and Sport took place at the UNESCO Headquarters in Paris on January 9-10, 2003. ICSSPE was represented by Prof. Dr. Gudrun Doll-Teppe, ICSSPE President, Prof. Dr. Margaret Talbot, ICSSPE Vice-President and IAPESGW President, and Christophe Mailliet, ICSSPE Executive Director. Additionally, Prof. Dr. Ron Feingold, AIESEP President, and Prof. Dr. Manoel Tubino, FIEP President, were invited by UNESCO and also attended the meeting. Other NGOs represented included FIMS and ICHPER.SD.

ICSSPE presented the following statements at the meeting. The first part *Strengthening physical education and sport in the educational environment* was presented by Prof. Dr. Gudrun Doll-Teppe as an introductory keynote speech for the session on this theme. Parts 2 and 3 *Protection of young athletes/International legal document against doping* were presented respectively by Prof. Dr. Margaret Talbot and Prof. Dr. Gudrun Doll-Teppe during the debates.

Each statement is addended (italics) by the relevant section of the final communiqué which directly relates to the information presented by ICSSPE and states the official commitment of the participating and represented ministers and senior officials.

### Position of the International Council of Sport Science and Physical Education

#### 1. Strengthening physical education and sport in the educational environment

The International Council of Sport Science and Physical Education was the initiator of the first comprehensive, world-wide audit on the state and status of physical education, and of the World Summit on Physical Education in Berlin, Nov. 3-5, 1999, which received patronage and support from UNESCO, the World Health Organisation and the IOC. We are very pleased that there is now an international consensus that this issue deserves serious consideration, in order to solve existing and future problems. We are encouraged by the very positive support given to progressing access to physical education and sport by all contributors to the discussion.

The World Summit on Physical Education offered an opportunity to discuss physical education from different scientific angles. Tropics of keynote addresses included:

- State and status of physical education in global context
- Case for physical education
- Good practice in physical education
- Nutritional needs for physical education
- Physical education and physical development
- Social, community development through physical education
- Physical education, health and well-being
- Physical education: economic considerations

Additionally, workshops were conducted on varied themes including:

- Physical Education in National Development and Reconstruction
- Inclusion and Integration
- Working towards a balanced curriculum
- Physical education, schools and community

Important findings from the international comparative survey brought up recurrent issues in many parts of the world, such as:

- Decreasing curriculum time allocation
- Budgetary constraints with inadequate financial, material and personnel resources
- Low subject status and esteem

Marginalisation and under-valuation by authorities In the physical education profession and in academia, there is now a consensus that the issue of physical education deserves serious consideration in all nations world-wide. Data from all regions of the world show a steady increase in health problems linked to the lack of physical activity. At the same time, recent studies show that physically active students tend to perform better in academic subjects. "Quality" is the key to successful future developments, especially with regard to:

- Physical education programmes in the schools
- Co-operation between schools, community and clubs
- Professional training in universities and in-service training.

At the end of the World Summit on Physical Education, the participants adopted the "Berlin Agenda for Action for Government Ministers" which states:

"The World Summit on Physical Education reinforces the importance of Physical Education as a life-long process. It is particularly important for every child as articulated in the International Convention on the Rights of the Child. All children have a right to:

1. the highest level of health,
2. free compulsory primary education for both cognitive and physical development,
3. rest and leisure,
4. play and recreation."

ICSSPE urges Member states to take action to sustain a positive future for physical education and sport in schools and the wider community by placing emphasis on the quality of delivery of physical education and sport. This includes:

- appropriate teacher training preparation,
- regular required in-service teacher training,
- development of physical education curricula which are relevant to individuals and 21st century life-style patterns,
- improved education regarding issues related to the fight against doping, and
- inclusion policies for gender and disability-related issues to provide equal opportunities for boys and girls and young people with disabilities.

Such inclusion policies need to be translated into school, out-of-school and post-school community settings through facilitation of multi-sector partnership links. ICSSPE also urges all Member States to keep a watching brief on developments and monitor the implementation of policy promises into reality.

International research results provide a challenge to address the status and resources of physical education. Most governments are working hard to balance the overwhelming number of requests for their limited resources. However, when physical education is not incorporated as an integral part of education programs, the consequences can be long/lasting and manifold. The issue can be summarised by the following slogan: "Pay for physical education now. Or pay - much more - later for the damage done."

Physical education can and does provide a large number of health, social, cognitive and economic benefits. Physical education can and does provide a return on investment in other areas of spending, most notably health.

Based on the evidence available, we ask Member States to effectively implement the Declaration of Punta del Este and the recommendations of MINEPS III. Governments and civil society, working together, can make a difference for our most precious resource - today's children and youth. This is an international problem requiring international, national and local action.

## Selected literature

DOLL-TEPPER G. & SCORETZ D.: *Proceedings of the World Summit on Physical Education*. International Council of Sport Science and Physical Education, Berlin 2001. (available in English, German, Chinese, Polish, Japanese)

HARDMAN K. & MARSHALL J.: *World-wide Survey of the State and Status of School Physical Education - Summary Findings*. University of Manchester, Manchester 1999.

### **Section 2, page 2. Final communiqué, of the Round Table of Ministers and Senior Officials Responsible for Physical Education and Sport, Paris, 2003.**

#### **Participants committed themselves to:**

a)

- *Make further efforts to fulfil the commitments made at the Third International Conference of Ministers and Senior Officials Responsible for Physical Education and Sport (MINEPS III).*

b)

- *Work actively so that the place of physical education and sport within and outside education systems is fully recognized and developed - through actions to improve the curriculum, sports facilities and equipment, the status of physical education and the initial and in-service training of teachers and also through the elaboration of strategies for combating all forms of discrimination linked to gender, income, social origins, location or disability.*

- *Put in place monitoring systems to regularly review the situation of physical education in our respective countries, in particular its role in evaluation systems.*

- *Strengthen cooperation between different partners (the family, schools, sporting associations and clubs, communities, local and other relevant authorities, public and private sectors) to obtain a synergy that ensures the availability of physical education of good quality for all.*

- *Support less developed countries in their efforts to offer more opportunities for physical education and sport to their people.*

- *Revitalize the practice of traditional sports and games, a key expression of cultural identities, and promote their interaction with modern sports.*

## **2. Protection of young athletes**

The International Council of Sport Science and Physical Education is pleased to have the opportunity to make an intervention on the protection of young athletes, from the point of view of practitioners in physical education, sport and research.

As pointed out in the annotated agenda, young athletes and children engaged in sport and physical activity are often exposed to risks and threats which are a direct consequence of either unsuitable practices of sport, or of inappropriate conditions and settings. Exploitation of children and youth in sport can be diverse and manifold, leading to damage to their personal and/or material well-being and the integrity of their personality, up to being subject to criminal behaviour such as sexual and physical harassment and abuse. Sadly, sport can be a magnet for child abusers.

Sport cannot have separate status with regard to commonly accepted standards for the ethical treatment of, and care for children and youth. Children and youth have a right to play, rest, and education, as stated in the International Convention for the Rights of Children. The world of sport must make sure that children and youth are treated with due care and respect, through the development of models of good practice. Effective and professional preparation of teachers and coaches is one of the keys to achieve this, and it is essential that all the people concerned with the sport experience of young people share the same values of respect for both sport and the dignity of the young people they serve.

Governments must make sure that the provisions pertaining to the rights of children and youth are respected in their countries, and that existing regulations against child abuse and child labour are applied as well. When such regulations are missing, Member states should adopt such legislative texts as soon as possible. It is necessary to end the exploitation of children and young athletes for doubtful purposes, whether commercial or political.



It is noteworthy that in many cases, it has been the educational community and academic researchers, who have shown the commitment and courage to raise awareness of this issue, especially sexual harassment and abuse. Where sports organisations have worked positively with these researchers to address the problem, especially when they have been supported by governments, there have been very positive results. Sports organisations should recognise their own responsibilities for developing good practice in child protection and preparing children and young people to make informed decisions in sport. To ensure healthy children and young people, we have to ensure healthy sport.

**Section 2, page 2. Final communiqué, of the Round Table of Ministers and Senior Officials Responsible for Physical Education and Sport, Paris, 2003.**

**Participants committed themselves to:**

*- Promote, through UNESCO and the Intergovernmental Committee on Physical Education and Sport (CIGEPS), on the basis of existing international normative instruments, the definition of globally acceptable principles which allow talented young people to develop their athletic potential while not denying them their fundamental rights; for this purpose, encourage the professions concerned to develop a "code of good practice", in close cooperation with sports movements.*

**3. Drafting of an international legal instrument to combat doping in sport**

ICSSPE fully supports the work undertaken by WADA and recommends that governments and sport organisations continue to work co-operatively to solve the issue of doping. On both the international and national level, a co-operative approach should be favoured instead of a coercive one.

We hope that the efforts of WADA will result in internationally accepted standards for the fight against doping, which will then be adapted to the particular national legal systems. The unethical and destructive behaviours linked to the practice of doping, which sometimes includes the encouragement of such practices by various institutions such as some sport teams, deserve a strong reaction and effective instruments to end it.

All stakeholders must take responsibility for their deeds and will have to be judged by their actions in the future. Effective control mechanisms concerning the production and distribution by the pharmaceutical industry of products which can be misused for doping practices, as well as concerning the manufacturing and uncontrolled distribution of dubious so-called "food supplements", should be put in place and implemented by the responsible bodies at the international and national level.

As stated by the representative of FIMS, future teachers and coaches should be made fully aware of their responsibilities in the fight against doping. This must be reflected in their education and training at all levels.

ICSSPE also points out the crucial role of education, in raising the awareness of young people, regarding the ethical, health and moral dangers of doping. By positively promoting the value of fair play, and of engagement in sport for its own sake, physical education in schools can support the legislative and regulatory activities of WADA and governmental intervention, in the most positive way.

Finally, ICSSPE and its member organisations are committed to support every effort to coordinate and disseminate research undertaken on all relevant fields of study, and work cooperatively with WADA for this purpose.

**Section 2, page 2. Final communiqué, of the Round Table of Ministers and Senior Officials Responsible for Physical Education and Sport, Paris, 2003.**

**Participants committed themselves to:**

d)

- Strengthen national programmes to combat doping and develop long-term strategies of information and education which engage all concerned stakeholders: students and athletes, parents and teachers, sports officials, doctors, and the media; and promote international cooperation and assistance to this end.

Extend the efforts against doping into recreational and non-competitive areas of sporting activity.

- Encourage Member States to attend the World Anti-Doping Agency's Conference in Copenhagen and support the development of a Global Anti-doping Code, as well as the efforts made by sports movements to develop anti-doping programmes, making use of the decisions made by the International Intergovernmental Consultative Group on Anti-doping and Sport (IICGADS) in Moscow.

- Work to broaden the number of States Parties to the Council of Europe's Convention against doping
- At the same time, accelerate the preparation of an International Convention against doping based on the Council of Europe's Convention against doping and request UNESCO, in cooperation with the United Nations Organization, other competent UN system agencies and the Council of Europe, in close collaboration with other concerned bodies such as the International Olympic Committee, the World Anti-Doping Agency and IICGADS, to coordinate the preparation, if possible before the Summer Olympic Games of 2004, and the adoption, if possible before the Winter Olympic Games of 2006, of a universal international instrument for this purpose.

The final press release on the results which also includes the full text of the final communiqué of the Round-Table can be found on the UNESCO website, at:

<http://www.unesco.org/bpi/eng/unescopress/2003/03-02e.shtml>



## IASI's Mission: To develop and promote the value of sport information.

**IASI Website:** <http://www.iasi.org/>

*IASI is a non-profit making organization whose aim is to stimulate, support and develop activities in the field of international documentation and information for physical education and sport. It brings together a worldwide network of scientists, documentalists, librarians, information experts and managers of sports information and documentation centers.*

*We welcome contributions to this newsletter from all countries in all languages. Send information to the IASI Newsletter editor, Ms Gretchen Ghent, Librarian Emeritus, c/o The University of Calgary Law Library, 2500 University Dr. NW, Calgary, Alberta, Canada T2N 1N4. Email: [gghent@ucalgary.ca](mailto:gghent@ucalgary.ca)*

Membership information is found on the IASI website, <http://www.iasi.org/> or contact

Mr. Jose Aquesolo, IASI Executive Secretary, C/o Andalusian Institute of Sport (IAD), Avda. Sta. Rosa de Lima, 5, E - 29007, Malaga, Spain, Tel: +34 951 04 19 00, Fax: +34 951 04 19 39, Email: [jaker@uida.es](mailto:jaker@uida.es)

## IASI News

### Cooperative Projects Between IASI and the IOC

In the continuing, co-operative relationship between IASI and IOC, and as an extension of the information supplied in Manual for a Sports information Centre (2000), Alain Poncet met with our partners at IOC headquarters on July 1. In attendance was Mr. Pere Miro Director of Olympic Solidarity and NOC Relations Department, Mr. Michel Filiau, Chief of the Administrative Service of NOC Relations Department, Mrs. Nuria Puig Director of the Olympic Studies Center in the Olympic Museum, Mr. Jerome Poivey assistant Mr. Filiau.

Two main topics were discussed. The first topic concerns the World Directory of Sports Information Centres and Experts. This database will be soon available on the NOC Extranet, by a link created from [www.directory-iasi.org](http://www.directory-iasi.org). In addition an announcement will be made to inform the NOC information centres about the existence of this new product. Included in the announcement will be an encouragement to register their NOC libraries/centres in the World Directory. In that way, we hope to have, in a very short time, a comprehensive database where a specific centre or expertise could be found from any part of the world.

The second discussion point concerned the program for developing countries and in particular for Africa. That is a recurrent question we discussed during our last ExCo meeting in Barcelona. Emerging from the meeting was the proposal for the future establishment and support for two main African sports information centres: one to serve the English speaking area; the second for the French speaking area. These centres, which would be supported by an existing NOC, would become the co-operative resource and foundation for sport information for all the NOCs in their respective linguistic area. With this infrastructure support, IASI would provide its expertise in the field of creating and developing a sports information and documentation centre.

Ms. Gretchen Ghent  
University of Calgary Law Library  
2500 University Dr. NW  
Calgary T2N 1N4  
CANADA  
tel. +403 220 6097  
fax +403 282 6837  
[gghent@ucalgary.ca](mailto:gghent@ucalgary.ca)

### *Events for Athens 2004 Paralympics Determined - Participation of Athletes with Intellectual Disability Still Uncertain*

The IPC Executive Committee determined the events programme for the 2004 Paralympic Games in Athens. Athletes will compete in around 500 medal events in 18 sports. The selected events reflect the IPC's commitment to support female athletes and those with severe disabilities. For example, judo and sitting volleyball will be offered for women for the first time. In boccia and wheelchair tennis, new events were added, which cater for athletes with severe disabilities. Events for athletes with intellectual disabilities (ID) have not been included in the programme at this point. A final decision will be taken at the end of January 2003.

At the Sydney 2000 Paralympic Games, several athletes had cheated and competed in events for intellectually disabled athletes, although they did not meet the eligibility criteria. The IPC and INAS-FID, the international sports federation for athletes with intellectual disabilities, have worked together since then to establish an eligibility system and protest procedures which will prevent such incidents from happening again.

The IPC President said that he was pleased with the progress made towards the establishment of a new eligibility system, which must have a strong focus on the athletes' sport specific abilities. INAS-FID announced that it now fully accepts the IPC's conditions for ID-events with full medal status being included in all IPC-sanctioned competitions; but it acknowledged that it does not meet these criteria yet. The IPC Executive Committee decided to give INAS-FID the opportunity to continue developing a new eligibility system. However, a final decision concerning the inclusion of ID-events in the programme of the Athens 2004 Paralympic Games will be taken January 2003.

For further information, please contact  
Dr. Susanne Reiff,  
IPC Director of Media and Communication  
Adenauerallee 212-214  
Bonn 53113  
Germany  
Phone: 49 228 209 7200,  
[Susanne.reiff@paralympic.org](mailto:Susanne.reiff@paralympic.org)  
<http://www.paralympic.org>

## **RAFA: La Red de Actividad Física de las Américas**

### **PANA: The Physical Activity Network of the Americas**

#### **An Introduction and Overview**

#### **Physical Activity Network of the Americas Opening Declaration**

*We, the undersigned, recognizing the importance of promoting health and quality of life through physical activity and respecting the principles expressed in the São Paulo Manifesto to Promote Physical Activity in the Americas, have met October 4 – 6, 2000 in São Paulo, Brazil, hosted by CELAFISCS and supported by PAHO and CDC, to establish the Physical Activity Network of the Americas. We have agreed to promote the expansion of this network to include a representative from all countries in the region. We have also agreed to provide leadership in our respective countries to build the concept that this international group will be a “Network of National Networks” with criteria for international and national representation to be determined. We believe that this network will be a first step towards ultimately achieving a global network to promote health and quality of life through physical activity .*

#### **Background to RAFA**

The Americas are experiencing an epidemic of cardiovascular disease, diabetes, obesity and other non-communicable diseases (NCDs) leading to preventable morbidity and mortality. Physical inactivity is an important underlying cause of these NCDs. La Red de Actividad Fisca de las Américas (RAFA)/The Physical Activity Network of the Americas (PANA) is created with the objective of building a “network of national networks” integrating members of public and private institutions both nationally and internationally to promote health and quality of life through physical activity. RAFA/PANA work with members to develop, share and coordinate strategies, which strengthen efforts to increase knowledge, benefits and the levels of physical activity among populations in the Americas.

The Network includes members of public and private institutions that initiate or develop physical activity programs, as well as national and international organizations that can advise and sponsor member activities

#### **Summary of Development Process: A Network of National Networks**

The Physical Activity Network of the Americas was inspired by a combination of local and international factors. Agita São Paulo and other community-based programs in the Americas demonstrated that physical activity promotion was timely and feasible. On the international front, WHO expanded its health promotion efforts into physical activity starting with a planning meeting in Geneva in February 1997. This was followed in September 1998 by a meeting in Ottawa, Canada in which an Active Living National Policy Network was proposed. The concept of starting a regional network in the Americas evolved simultaneously from regional programs and international recommendations.

During the 21st and 22nd International Symposium of Sciences and Sport held in São Paulo, (October 1998-1999), representatives from several countries of the Americas discussed and developed the first official document to promote physical activity in the Americas, entitled “The São Paulo Manifesto: Promoting Physical Activity in the Americas.”

Since this time, The Manifesto has been translated into English, Spanish and Portuguese and has served as the basis for physical activity promotion throughout the Americas.

Representatives from the Americas, international institutions and organizations reconvened in São Paulo, Brazil during the International Symposium of Sciences and Sport held in October 2000. During this meeting, it was decided that the Physical Activity Network of the Americas would officially be established as a means for sharing information and strategies to promote physical activity in the Americas. It was agreed that RAFA would develop activities, as much as possible, in synergy with the CARMEN Programs, which are prevention programs for noncommunicable diseases (NCDs) coordinated by PAHO, allowing “better communication and sharing of experiences and knowledge among countries.”

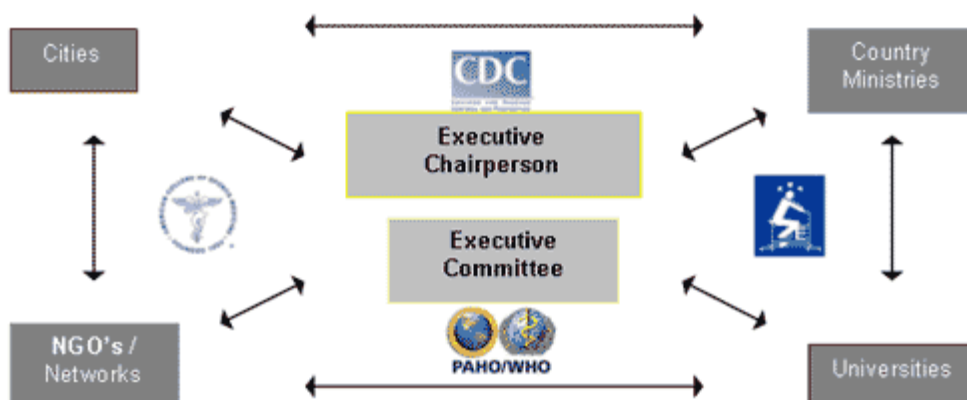
#### **Current Structure of RAFA**

With increased momentum among RAFA members following the success of meetings held in Caracas, July 2001, São Paulo, October, 2001 and Miami, January 2002, a small executive committee chaired by Dr. Victor Matsudo from Centro de Estudo do Laboratório de Aptidão Física de São Caetano do Sul (CELAFISCS), was

elected in January 2002. (Figure 1 Structure) Persons of the executive committee were nominated from North, Central and South America and the English-speaking Caribbean and unanimously confirmed by all participants present. The members include: Mr. Randy Adams (Health Canada) Dr. Jorge Franchella (Argentina); Dr. Margarita Claramunt-Garro (Costa Rica); Dr. Rocio Gamez (Colombia); Dr. Manuel Ramirez Zea (INCAP/PAHO/Guatemala); Arlene Nicholson (Jamaica); Jim Whitehead (ASCM, USA); Dr Michael Pratt, Dr. Becky Lankenau, and Andrea Neiman (CDC, USA); Dr. Enrique Jacoby, Dr. Lucimar Coser-Cannon, PAHO, USA); Dr. Pedro Alexander (Venezuela). Through 2003, the executive committee will work to facilitate, disseminate and coordinate activities and events of the network as well as operationalise the network.

### Current Activities of RAFA

1. Coordinate follow-up activities around World Health Day;
2. Involvement in International Prevalence Study using International Physical Activity Questionnaire demonstrating the feasibility of collecting internationally comparable data.
3. Develop guidelines for various aspects of the Network;
  1. permanent secretariat
  2. RAFA membership
  3. Voting
  4. Operation of the network
4. Develop or identify a website for RAFA and link this site to key existing websites;



**Figure 1 Structure**

\* PAHO 3rd Meeting of the CARMEN/CINDI Working Group on Physical Activity, Miami, Florida USA 2 February, 2002

## TAFISA News

*New TAFISA web site.*

It's my pleasure, on behalf the Board of Directors, to inform you about the launching of TAFISA website under the responsibility of TAFISA vice-President Dr Oscar AZUERO-RUIZ, from Columbia.

Please visit our site at the address: [tafisa.net](http://tafisa.net), and don't hesitate to contact the Webmaster Rafael Ospina (e-mail address: [rospina@tafisa.net](mailto:rospina@tafisa.net)). As you know, the success of this support depends of your participation. Please send all your comments to our Webmaster as soon as possible.

J. Raynaud  
Secretary General

## Declaration of Sao Paulo to promote physical activity in the world

A group of International and National Institutions met at the XXV International Symposium on Sports Sciences in São Paulo and agreed that an independent organization was needed to stimulate global physical activity promotion and coordinate Move for Health Day. The gathered institutions strongly recommend forming a non-governmental organization (NGO) focused on physical activity promotion to carry out these goals.

### Background

Considering:

1. The high prevalence (over 50%) of physical inactivity in developing and developed countries;
2. The contribution of physical inactivity to total mortality, and especially morbidity due to cardiovascular disease and cancer;
3. That physical inactivity, combined with tobacco and poor diet, cause 75% of non-communicable disease (NCD) mortality;
4. That 79% of the deaths attributable to non-communicable diseases occur in developing countries;
5. That NCD's account for approximately 60% of all deaths and 43% of the global burden of disease, and are expected to rise to 73% if all deaths and 60% of the global burden of disease by 2020;
6. That approximately 2 million deaths worldwide each year are attributable to physical inactivity;
7. The major consequences of physical inactivity to morbidity from obesity, hypertension, diabetes, and depression;
8. The benefits of physical activity to biological health: controlling body weight, improving glucose tolerance, bone density, cholesterol levels, reducing blood pressure;
9. The psychosocial benefits of physical activity: increasing self-esteem, self-image, well-being, mental agility, reducing loneliness, stress, anxiety, and depression
10. The potential indirect benefits of physical activity in lowering rates of violence among young people, promoting tobacco-free lifestyles and decreasing other risky behaviors such as unsafe sex or illicit drug use;
11. The high direct medical costs of physical inactivity: \$76 billion per year in the United States, \$34.7 million in Sao Paulo in 2002, and 2% to 3% of total medical costs in many developed countries;
12. The impact of World Health Day 2002 celebrations, consisting of 1987 events, in 148 countries on the five continents, with messages translated to 63 languages, involving the general public, policy makers, and health promotion networks;
13. The unanimous decision of World Health Assembly 2002 in approving WHA Resolution 55.23 urging all member states to celebrate "Move for Health" day each year to promote physical activity as essential for health and well-being;
14. That WHA Resolution 55.23 also called for developing a Global Strategy on Diet, Physical Activity, and Health for the prevention and control of non-communicable diseases;
15. The impact of local, regional, national and continental initiatives, such as: Agita Sao Paulo, Agita Brasil, Active Australia, Muevete Bogotá; Risaralda Activa; Mueve-te Pues; A Moverse Argentina; Uruguay em Movimento; Venezuela em Movimento; Muevete Panama, Vida Chile, among others.
16. That international scientific institutions such as WHO, PAHO, ACSM, FIMS, COPAMED, among others have already developed position statement to promote regular physical activity, as an important tool for health.

### Purpose

The purpose of the Agita Mundo/Move for Health NGO is to promote physical activity as a healthy behavior for people of all ages, nations, and characteristics. The Agita Mundo -Move For Health NGO will stimulate research, encourage the dissemination of information on the health benefits of physical activity and effective strategies to increase physical activity, advocate for physical activity and health, and support the development of national and local programs and networks for physical activity promotion.

1. The specific objectives of the Agita Mundo - Move for Health NGO are to: Advocate for physical activity and health through an annual Move for Health Day, other community-based and community wide events, and informing policy makers of the importance of physical activity to public policy.

2. Widely disseminate a clear, simple and consistently delivered message on the health and social benefits of 30 minutes of moderate physical activity every day
3. Stimulate the creation of regional and international networks for physical activity promotion and provide linkages between these networks. Share good practices and effective strategies and programs through websites, meetings, workshops, and publications.

### **Future Agenda**

As a practical first step towards reaching these objectives, a provisional agenda for 2002/2003 was proposed:

1. Celebrate Move For Health/ Agita Mundo Day in April 2003. April 6 will be the primary day for celebration.
2. Announce the formation and mission of the Agita Mundo/ Move for Health NGO on April 6, 2003 in conjunction with the celebration of Move for Health Day in 2003.
3. Establish a website for the NGO and link and coordinate this website with existing physical activity websites.
4. Begin a staged consultative and planning process to identify key global takeholders and partners for physical activity promotion, and the framework and structure the NGO will need to engage and collaborate with these partners and carry out its mission.

To carry out these initial tasks:

1. An NGO will be legally established in São Paulo, Brazil
2. The minimum staff, funding, and logistical support required for the NGO will be put into place.
3. A flexible, responsive structure in accord with Brazilian regulations for non-profit organizations will be formed. An international advisory board will provide guidance and oversight of the NGO. The NGO will solicit the support of and partner with international and national organizations, but will not be a membership organization. By remaining independent of both governments and international organizations it can work with all groups, act quickly, and be a forceful advocate for global physical activity promotion.

## Physical Inactivity: Finding Web Documents and Print Sources

By Gretchen Ghent, Publications Officer  
International Association for Sport Information

Many current sport science articles and government reports have been published recently on the lack of sufficient and regular physical activity of the population as a whole or within certain age groups. Research studies show the causal relationship between physical inactivity and the increased risk of specific disease and mortality. Some articles and reports outline the current or future health and economic costs if physical inactivity trends continue. The search engine Google <http://www.google.com/> reveals a number of key reports and the international databases, SPORTDiscus and PubMed provide references to essential periodical articles.

In the US an important report was published in 1996 entitled:

- Physical Activity and Health: report of the Surgeon General. Washington, D.C., Surgeon General, 1996. <http://www.cdc.gov/nccdphp/sgr/summary.htm>

A recent benchmark study on a local population using the CSA accelerometer that measured actual activity levels can be found in PDF format at:

- Physical Activity Levels in Children and Youth in the Province of Nova Scotia by Phil Campagna, et al. Halifax: Nova Scotia Sport and Recreation Commission, July 2002. 27p. [http://www.gov.ns.ca/src/initiatives\\_pacy\\_research.htm](http://www.gov.ns.ca/src/initiatives_pacy_research.htm)

Other fulltext reports include:

- Physical Inactivity Olympia, WA: Washington State Dept of Health, 1996. [http://www.doh.wa.gov/publicat/96\\_HWS/pahp4.pdf](http://www.doh.wa.gov/publicat/96_HWS/pahp4.pdf) (Available in PDF format)
- Promoting Better Health for Young People Through Physical Activity and Sports A Report to the President from the Secretary of Health and Human Services and the Secretary of Education. Washington, D.C., 2000. [http://www.cdc.gov/nccdphp/dash/healthtopics/physical\\_activity/promoting\\_health/](http://www.cdc.gov/nccdphp/dash/healthtopics/physical_activity/promoting_health/)

The costs of physical inactivity has been calculated in these reports:

- The Costs of Illness Attributable to Physical Inactivity in Australia: a Preliminary Study. A discussion paper prepared for the Commonwealth Dept of Health and Aged Care and the Australian Sports Commission, 2000. (In PDF format ) [http://www.dhac.gov.au/pubhlth/publicat/document/phys\\_costofillness.pdf](http://www.dhac.gov.au/pubhlth/publicat/document/phys_costofillness.pdf)
- The Long-Run Growth in Obesity as a Function of Technological Change by Tomas J. Philipson and Richard A Posner. Cambridge, MA: National Bureau of Economic Research, Nov. 1999. (NBER Working Paper No. W7423). ( Website: <http://www.nber.org/> Click on Working papers and use the search engine to find this paper)

### Searching SPORTDiscus

Using the free-text term physical inactivity (free-text searching uses natural language or unique keywords that can be found in any field of a database), over 120 records were found. Limiting the search to advanced level (ie research-based) sources revealed over 70 records (intermediate level records were over 30). The following records are good examples:

- The Economic Burden of Physical Inactivity in Canada by Peter T. Katzmarzyk, Norman Gledhill and Roy J. Shepherd. Canadian Medical Association Journal, (2000) v163, No. 11, Nov. 28, p. 1435 - 1440. (Available fulltext at <http://www.cmaj.ca/> )
- *Economic benefits of the health-enhancing effects of physical activity: first estimates for Switzerland,*



by B.W.; Martin et al. *Schweizerische Zeitschrift fuer Sportmedizin und Sporttraumatologie/Revue Suisse de medecine et de traumatologie du sport/Rivista svizzera di Medicina e traumatologia dello sport (Bern)*, 2001, v.49, no3, pp. 131-133.

Additional searches can be made in SPORTDiscus using the recognized descriptors: physical fitness and economics or any combination of descriptors including: exercise, compliance, health promotion.

**Searching PubMed**<http://www.ncbi.nlm.nih.gov/PubMed/>

Using the keywords *physical inactivity quickly* found:

- Healthy lifestyles in Europe: prevention of obesity and type II diabetes by diet and physical activity, by A. Astrup. *Public health nutrition* (Oxon), 2001, Apr, no. 4 (2B); pp. 499-515.

## Book Sources

A wide range of book materials are available also including:

- Bouchard, Claude (2000), *Physical activity and obesity*. Champaign, Ill: Human Kinetics.
- McElroy, Mary. (2002), *Resistance to exercise: a social analysis of inactivity*. Champaign, Ill: Human Kinetics.
- Samitz, G & Mensink, G.B.M. (2002) *Körperliche Aktivität in Prävention und Therapie: evidenzbasierter Leitfaden für Klinik und Praxis*. München: Hans Marseille Verlag.

## Author Contact Information

Gretchen Ghent, Librarian Emeritus

(VP for North America & Publications Officer for the International Association for Sport Information & Chair, North American Sport Library Network)

C/o The University of Calgary Law Library

2500 University Dr. NW, Calgary, Alberta, Canada T2N 1N4

Tel: 403-220-6907

FAX: 403-282-6837

[gghent@ucalgary.ca](mailto:gghent@ucalgary.ca)

NASLIN website: <http://www.sportquest.com/naslin/>

Scholarly Sport Sites: <http://www.ucalgary.ca/library/ssportsite/>

IASI Website: <http://www.iasi.org/>

## Book Review

### Sport, Nationalization, and Globalization

*Albany, New York: State University of New York. ISBN 0-7914-4912-2.*  
*Author: Bairner, A . (2001).*

This book involves the constructs of sport, nationalism, globalization, and national identity. The book begins with a summary of sport and nationality. With such topics as politics, unionism, and change, the author seems to explore every aspect of sport, nationalism, globalization, and national identity. The author acknowledges that sport, nationalism, and nationality are all bonded together. Former British Prime Minister, John Major, had claimed that cricket was an English sport. However, Bairner raises the issue of whether or not people who play cricket are therefore supporters of England. The book then begins a recollection of his childhood. Also in the introduction, the author discusses his experiences with national identity and sport. He discusses how important soccer was to his realization of the importance nationalism, national identity, and sport are to the world. He speaks of how soccer unified some parts of Scotland, while splitting others. Chapter one gives an overall description of national identity, globalization, and sport, while chapters two through seven discuss the issues by various regions of the world.

In Chapter 1, the author provides examples of some of the symbols of civic pride. Bairner discusses how emblems and colors can cause pride and, in some instances, violence. He also analyzes how sport may be used to globalize the world, and speaks of how politicians and everyday citizens alike choose sport as a means of relating to each other and conducting business.

Bairner also notes that, at times, nationalism inadvertently resists globalization because people of a nation have too much pride to support other nations. Chapter two begins the breakdown of nations by using England and Scotland as examples. The remaining chapters follow suit by using England, Ireland, Sweden, the United States and Canada.

Chapter 2 provides a glimpse into Ireland and how sport affects basically every aspect of the country. In politics, the author gives an account of how politics have changed since the 1960s and how sport has improved relations there. He also discusses how sport can be used to globalize nations such as Great Britain and Ireland.

Chapter 3 gives an idea of how Scotland uses sport to unify their nation although it tends to work against the globalization aspect of sport. Also, according to Bairner, Scotland gave the world the gift of golf and made rugby as popular as it is today.

Chapters 4 and 5 go on to discuss Ireland and the United States. The chapters give a history of the nations and how sport affects nationality. In the nation of Ireland, the author believes that there is no problem in actually stating that nationalism and nationality actually exists. In the United States, sport plays a major role in the economy, business, and every other aspect of life in the nation.

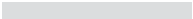
Chapter 5 also provides a glimpse of the influence that Native Americans had on sport. Some of the mascots from professional teams still reflects their influence: the Cleveland Indians, the Washington Redskins, and the Atlanta Braves.

In Chapter 6, Bairner discloses thoughts about hockey, lacrosse and football. The author also conveys the Americanization of football in Canada. The author discusses the fact that football and ice hockey are the only two sports that have remained Canadian.

The author also discusses how important ice hockey is to Canada as a nation. Chapter 7 provides a good discussion on sport in Sweden. Skiing is the sport that is showcased in this chapter. The Swedish have a long history of skiing prominence. In Chapter 8, Bairner uses a more analytical or theoretical approach to summarize what has been discussed throughout previous chapters of the book. He also provides a rather sketchy analysis of national identity, nationalism and globalization.

While this book held the reader's attention for short periods of time, it provided several lulls. It can serve as a good reference for those who wish to understand the way in which nationalism, national identity, globalization, and sport are intertwined. The book, while thorough and useful in examples of various nations to substantiate the author's point, requires substantial concentration on the part of the reader. Anyone who wishes to get an understanding of how sport can be utilized to unify a nation, and, unfortunately, divide a nation, will find this text of interest.

Khristopher Turner and Darlene Kluka  
Grambling State University of Louisiana  
Dept. of HPER  
P.O. 1193  
Grambling, Louisiana  
USA  
[eyesport@aol.com](mailto:eyesport@aol.com)



## An Introduction to Sportology

*An Introduction to Sportology: by Vladimir Rodichenko*

Sportology is a new word for Sportscience. Sporto-logy is composed by two parts as Psycho-logy, Anthropol-ogy, Metereo-logy or Socio-logy. The ending "logy" stands for "science". This introduced word by Vladimir Rodichenko is the title for his look back at the development of Sport and the related Sciences in the last 50 years. It is a very personal review by Vladimir Rodichenko containing extracts from selected papers. The book summarises more than 400 articles and the 74 books and booklets by Vladimir Rodichenko written mostly in Russian.

The author is Doctor of Science (Pedagogics) and was Head of the Directorate of Sports and Methods of the former USSR Sports Committee. He was also pro-rector of the Moscow Institute of Physical Culture. In this functions he attended the Olympic games in 1968, 1972, 1976, 1984 and 1988. For the games of the XXII Olympiad held 1980 in Moscow he was the Director of the Sports Department of the Organising Committee. It was in this position I got to know him visiting Switzerland to prepare the co-operation-contract with Swiss Timing to take care of the timing at the games in Moscow.

This book is mainly a personal look back, but also a trial to overcome the gap or even contradiction between the former socialistic sport system and the new eastern European sport of the nineties. The book also wants to point out the inadequate implementation of ethical values in the world of sport.

In short chapters, the author comments some of his main concerns. He describes the years of Struggle for Equality in the IAAF (International Amateur Athletics Federation), the Russian Fair Play Program to prevent Violence in Sport, and Sport and the State: the Case of the USSR with References to the GDR, Cuba and China.

His favourite topic in the book is the Olympic Movement: the Olympic Games, the Olympic Congress in Paris as a Point of Renovating Olympic Education, and the future Olympic Athlete. A special chapter is concerned with Olympic Education: Diversity of National Models, but Global Imperative.

The boycott of the Olympic Games in Moscow by the Americans and some other western partners with respect to the Invasion of the Soviet Army in Afghanistan is not mentioned in the book. For sure it would have been nicer to have had participants from all parts of the world.

"Many persons from nations whose NOC were unable to send their delegations to the Games in Moscow took part nevertheless in the preparation and execution of officiating at the Games of the XXII Olympiad: 24 persons from the USA, 18 from Japan, 14 from FR Germany. In all, 111 persons from 25 nations not represents by their Olympic teams took part in officiating of the Games." (p. 27)

The very final passage of the book focuses on a very interesting fact: The author criticises the Olympic Charter, because it omits the fact that Olympic Games need also Spectators, beside Athletes and Officials:

"Finally, I would say that since the end of 1999 we have been facing the process of the Olympic Movement reforming and renovating. I do believe that it would be very wise if the problem of integration of such a public category of people as spectators into this movement would also find its comprehensive juridicial solution in the Olympic Charter." (p. 126)

Dr. Guido Schilling  
ICSSPE Honorary Member  
Alpenstr. 4  
CH-2532 Magglingen  
SWITZERLAND  
Fax: 0041 323232148  
[schili@bluewin.ch](mailto:schili@bluewin.ch)

## **Book Review:**

**Chernushenko, D., van de Kamp, A, and D. Stubbs. (undated).**

**Sustainable Sport management: Running and environmentally, socially and economically responsible organization.**

**United Nations Environment Programme. (Book plus CD-ROM)**

This book is a follow-up to David Chernushenko's 1994 groundbreaking, *Greening our games: Running sports events and facilities that won't cost the Earth*, the first comprehensive look at modifying the way sporting events and facilities could be run to minimize damage to the environment. *Sustainable Sport Management*, is written to be a useful tool for both volunteers and professional organization and event managers as they struggle to find ways to advance their sport while having minimal negative impact on the environment. The book is written at a level suitable for working professionals, volunteer Boards of Directors, and undergraduate students, and would make an interesting text for undergraduate students in the area of sport management. It certainly won't teach sports managers to run their programs, but rather, the book can teach those who already know how to run their events and organizations how to run them with greater environmental consciousness.

The thirteen chapters are divided into four major sections that take the reader from the "why" of the need for sustainable sport development, through inspiring and involving staff, volunteers and other stakeholders to become more environmentally active, to some specific and detailed ways in which both facilities and events can be environmentally improved. One of the great strengths of the book is the frequent use of side-bars and bullets that highlight credible, specific actions that either have been taken by real-world organizations or could be taken by the organization for which the reader has responsibility. I found that while reading, I was often side-tracked into making lists and notes about actions that I thought it would be wise for my own organization to take. I also started contemplating some of the organizational inertia I would have to overcome, and some of the resistance to change that I would likely face. I was therefore excited to come across a major heading: *Overcoming resistance*. That excitement soon evaporated when I turned the page to find that the section run for a total of 20 lines, 21 lines if you counted the heading. Now I don't think that my university is a particularly anti-environmental institution, but I would anticipate some resistance to change, and the material presented in that one section was considerably less detailed than I would have liked.

At a deeper level, I have some concerns about the absence of suggestions or guidelines to help evaluate the trade-offs that inevitably face any organization making environmentally sensitive decisions. I opened the book at random to find an example – and on page 100 found the following sensible and logical set of questions to be asked in the evaluation of products that an organization might buy: Does the product contain recycled material? Does the product contain banned or restricted substances? Does the design minimize use of resources such as energy or water? Is it easily maintained and repaired? Is it reconditionable or recyclable after use? Does the product require special disposal considerations? My problems came when I tried to apply these questions in consideration of some office purchases. In selecting paper – no problem with the decision to go with photocopier paper that had 20% recycled material, but once I tried to apply the same set of questions to a piece of equipment I ran into a brick wall. How much recycled material did the two manufacturers have in their photocopiers? Neither manufacturer could (or would) tell me. Both said "parts could be recycled – but with no details of how much, or which parts, were forthcoming. One manufacturers also mentioned that the parts could only be recycled, "If the facilities were available locally" but couldn't tell me what facilities were actually needed.

I also thought it would be good idea to test the book against its own recommendations for printed materials, so I turned to the "Sustainable Publication Checklist" on page 142 and worked my way through it. Printing the book on acid free recycled paper was clearly in line with the book's own recommendations, as was the use of only black ink; but in a couple of other areas the book fell short. In particular I was struck by the use of glue bindings in a book that recommends, "avoid all glues in binding," and by the large amount of white space in a book that recommends the efficient use of white space (narrow margins and single-spacing). As a test, I scanned in a couple of pages, used optical character recognition to turn the material into word processing text, and had a couple of my students try different, attractive, layouts. I have to conclude that the book could have been printed elegantly on about 50 fewer pages per book. Although these are relatively minor issues, they illustrate the great practical difficulty of putting into daily practice even simple recommendations when decision making is distributed.

I received a CD-ROM that came with my copy of the book, and it contained an Adobe Acrobat electronic version of the book, along with some very useful information and photographs from around the world, including materials from Greenpeace on the environmental impact of the Sydney 2000 Olympic games, environmental guidelines from Sport Canada, environmental documents from Switzerland, and environmental benchmark data from Australia.

Overall, this is a very useful, readable and valuable book. I recommend it to any sport, recreation, or physical education organization that runs an office, operates a facility, or organizes an event. I cannot believe that there would be any such organization that could not improve its effectiveness, its public image, and its contribution to the environment by following the sensible, practical, suggestions made in this book. The collection of case studies and real-world examples of environmentally sound operations that are found throughout the book are reason enough to buy it, but the book will not change the environmental behavior of its readers without some effort on their part. There are often effective ways to reduce environmental damage, and this book is excellent in showing what needs to be done, what can be done, and how different organizations have made an environmental difference. It is a welcome addition to the reading in our field and above all it has one major virtue – it forces the reader to think about an important global issue to which we, as a profession, have so far paid too little attention.

Colin Higgs, Ph.D.  
Director, School of Human Kinetics and Recreation  
Memorial University of Newfoundland  
St. Johns, NL, Canada, A1C 5S7  
[chiggs@mun.ca](mailto:chiggs@mun.ca)

# Contact

## Executive Board

### President

**Prof. Dr. Gudrun Doll-Teppe**

Institute of Sport Science - FU  
Berlin  
Fabeckstraße 69  
14195 Berlin  
GERMANY  
Tel: + 4930 83853183  
Fax: + 4930 838 55837  
Email: gudrundt@zedat.fu-berlin.de

### Vice-President

**'Physical Education, Physical Activity and Sport'**

**Prof. Dr. Margaret Talbot**

Central Council of Physical Recreation  
Francis Street  
London SW1P 1DE  
UNITED KINGDOM  
Tel: +44 207 854 8500  
Fax: +44 207 854 8501  
Email: M.Talbot@ccpr.org.uk

### Vice-President 'Sport Sciences'

**Prof. Dr. Tony Parker**

Queensland University of Technology  
School of Human Movement Studies  
Victoria Park Road  
Qld 4059 Kelvin Grove  
AUSTRALIA  
Tel: +61 738643512  
Fax: +61 738643980  
Email: T.Parker@QUT.EDU.AU

### Vice-President 'Scientific Services'

**Dr. Colin Higgs**

School of Human Kinetics and Recreation  
Memorial University of Newfoundland  
A1C 5S7 St. John's, Newfoundland  
CANADA  
Tel: +1 709 737 81 29  
Fax: +1 709 737 35 24  
Email: chiggs@mun.ca

### Editorial Board Chairperson

**Prof. em. Dr. Jan Borms**

Blakmeers 31  
1790 Brussel  
BELGIUM  
Tel: + 32 53 667108  
Email: jborms@vub.ac.be

### Speaker Associations' Board

**Dr. Karen P. DePauw**

International Federation of Adapted Physical Activity (IFAPA)  
Virginia Tech Graduate School (0325)  
Sandy Hall  
24061 Blacksburg, VA  
USA Tel: +1 540 2317581  
Fax: +15402311670  
Email: kpdepauw@vt.edu

### Treasurer

**Prof. Dr. Darlene A. Kluka**

Grambling State University  
Dept. of HPER  
Grambling, Louisiana  
USA  
Tel: + 1 318 274 2294  
Fax: + 1318 274 6053  
Email: eyesport@aol.com

### Executive Director

**Christophe Mailliet**

Am Kleinen Wannsee 6  
14109 Berlin  
GERMANY  
Tel: +4930 80500360  
Fax: +49 30 8056386  
Email: cmailliet@icsspe.org

### Regional Co-ordinator Africa

**Prof. Dr. Lateef O. Amusa**

University of Venda for Science and Technology  
Centre for Biokinetics, Recreation & Sport Science  
Private Bag X5050  
0950 Thohoyandou  
SOUTH AFRICA  
Tel: + 27 015 9628076  
Email: amusalbw@yahoo.com

### Regional Co-ordinator Arab Region

**Dr. Essam Badawy**

National Sport Research Center  
Ministry of Youth and Sport Building  
26 July Street  
Meet-okba Giza  
EGYPT  
Tel: + 20 2 3470923  
Email: icsspe@alshabab.gov.eg

### Regional Co-ordinator Australia/Oceania

**Dr. Graham Costin**

Queensland University of Technology  
School of Human Movement Studies  
Victoria Park Roas  
Qld 4059 Kelvin Grove  
AUSTRALIA  
Tel: 0061738643980  
Fax: 0061 738643980  
Email: g.costin@qut.edu.au

### Regional Co-ordinator Eastern Europe

**Pierre Joseph de Hillerin**

Centrul de Cercetari Pentru Probleme de Sport  
B-dul Basarabi nr. 37-39  
73403 Bucharest  
ROMANIA  
Tel: +40 1 3249104  
Fax: +40 1 3249149  
Email: hillerin@sportscience.ro



**Regional Co-ordinator Asia**  
**Prof. Jin Jichun**

Beijing University of Physical Education  
North Road of Zhongguancun  
100084 Beijing  
P.R. of CHINA  
Tel: +86 10 62989713  
Fax: +86 10 62989297  
Email: JINJC4190@sina.com.cn,  
bupe@public.bta.net.cn

**Regional Co-ordinator North America**  
**Prof. Dr. Bruce Kidd**

Faculty of Physical Education & Health, University of Toronto  
55 Harbord Street  
M5S 2W6 Toronto, Ontario  
CANADA  
Tel: + 1 416 9787943  
Fax: + 1 416 9786978  
Email: bruce.kidd@utoronto.ca

**Regional Co-ordinator Western Europe**  
**Prof. Dr. Roland Naul**

Willibald Gebhardt Research Institute  
Ellernstr. 31  
45326 Essen  
GERMANY  
Tel: + 49 201 1837614  
Fax: + 49 201 1837624  
Email: roland.naul@uni-essen.de

**Regional Co-ordinator Latin America**  
**Prof. Dr. Victor Matsudo**

Physical Fitness Research  
Laboratory of Sao Caetano do Sul - CELAFISCS  
Av. Goiás, 1400 09520 Sao Caetano do Sul  
BRAZIL  
Tel: +55 114358980  
Fax: +55 114359643  
Email: celafiscs@celafiscs.com.br

**Prof. Dr. Ommo Grupe**

Eberhard-Karls-Universität  
Tübingen  
Executive Board Member  
Wilhelmstraße 124  
72074 Tübingen  
GERMANY  
Tel: +49 7071 2972628  
Fax: +49 7071 292078  
Email: ommo.grupe@uni-tuebingen.de

**Dr. Ken Hardman**

International Society for Comparative Physical Education and Sport (ISCPES)  
Oxford Road  
M139PL Manchester  
UNITED KINGDOM  
Tel: +44 1612 754964  
Fax: +44 1612 754962  
Email:  
Ken.Hardman@btinternet.com

**Susi-Käthi Jost**

Swiss Olympic Association  
Ob. Aareggweg 114  
3004 Bern  
SWITZERLAND  
Tel: +41 31 302 41 89  
Fax: +41 31 302 41 88  
Email: susi-kathi.jost@bluewin.ch

**Dr. Michael McNamee**

University of Gloucestershire  
Executive Board Member Leisure and Research Unit  
GL50 4AZ Cheltenham, Glos.  
UNITED KINGDOM  
Tel: +44 1242 544028  
Email: mmcnamee@glos.ac.uk

**Dr. Zsolt Radák**

Semmelweis Egyetem Testnevelési és Sporttudományi Kar  
Alkotás u. 44  
1123 Budapest  
HUNGARY  
Tel: + 36 1 356 5764  
Fax: + 36 1 356 6337  
Email: radak@mail.hupe.hu

**Prof. Dr. Alicja Rutkowska-Kucharskas**

Academy of Physical Education  
ul. Paderewskiego 35  
51-617 Wrocław  
POLAND  
Fax: +48 71 3482281  
Email: rutali@awf.wroc.pl

**Lauri Tarasti**

Supreme Administrative Court  
Unioninkatu 16 00130 Helsinki  
FINLAND  
Tel: +358 9 1853315  
Fax: +358 9 1853382  
Email: lauri.tarasti@om.fi

**Dr. Karin A. E. Volkwein**

International Association of Philosophy of Sport  
Department of Kinesiology  
19383 West Chester, PA  
USA  
Tel: +1 610 4362153  
Fax: +1 610 4362860  
Email: kvolkwein@wcupa.edu

**Associations' Board Representative**  
**Prof. Dr. Ronald S. Feingold**

Association Internationale des Ecoles Supérieures d'Education Physique (AIESEP)  
Woodruff Hall  
11530 Garden City, New York  
USA  
Tel: +1 516 877 4262  
Fax: +1 516 8774258  
Email: FEINGOLD@adelphi.edu

**Associations' Board Representative**  
**Mag. Julika Ullmann**

International Committee of Sport Pedagogy (ICSP)  
Rennbahnstr. 29  
3109 St. Pölten  
AUSTRIA  
Tel: +2742 280 4570  
Fax: +2742 280 1111  
Email: julika.ullmann@lsr-noe.gv.at



## ICSSPE Associations' Board

<b>Speaker</b> <b>Dr. Karen P. DePauw</b> Address – See Executive Board	<b>Association Internationale des Ecoles Supérieures d'Education Physique (AIESEP)</b> Prof. Dr. Ronald S. Feingold President Woodruff Hall 11530 Garden City, New York USA Tel: +1 516 877 4262 Fax: +1 516 877 4258 Email: FEINGOLD@adelphi.edu	<b>Association Internationale des Ecoles Supérieures d'Education Physique (AIESEP)</b> Prof. Dr. Francisco Carreiro da Costa Secretary General Technical University of Lisbon Estrada da Costa - Cruz Quebrada 1499 Lisboa Cedex PORTUGAL Tel: +351 0141 96777 Fax: +351 0141 51248 Email: fcosta@fmh.utl.pt
<b>International Sports Press Association (AIPS)</b> Togay Bayatli 34740 Ataköy Istanbul TURKEY Tel: +90 212 5600707 Fax: + 90 212 5600055 Email: aips@mail.matav.hu	<b>International Paralympic Committee</b> Mr. Philip Craven President Adenauerallee 212 53113 Bonn GERMANY Tel: +49 228 2097200 Fax: + 49 228 2097209 Email: info@paralympic.org	<b>International Society for Sports Psychology</b> Prof. Dr. Keith P. Henschen President Dept. of Exercise and Sport Science University of Utah 250 S. 1850 E. Rm. 200 UT 84112-0920 Salt Lake City USA Tel: +1801 5817558 Fax: +18015853992 Email: Keith.Henschen@health.utah.edu
<b>International Association for Sports and Leisure Facilities (IAKS)</b> Dr. Stephan J. Holthoff-Pförtner President Carl-Diem-Weg 3 50933 Köln GERMANY Tel: +49 221 4912991 Fax: +49 221 4971280 Email: IAKS-@t-online.de	<b>International Sociology of Sport Association (ISSA)</b> Prof. Dr. Joseph Maguire President LE11 3TU Loughborough UNITED KINGDOM Tel: +44 1509 223328 Fax: +44 1509 223971 Email: J.A.Maguire@lboro.ac.uk	<b>International Society for the Advancement of Kinanthropometry (ISAK)</b> Prof. Dr. Mike Marfell-Jones President Private Bag 11 022 Palmerston North NEW ZEALAND Tel: +64 6 9527001 Fax: +64 6 9527002 Email: M.Marfell-Jones@ucol.ac.nz
<b>International Association for Sports and Leisure Facilities (IAKS)</b> Klaus Meinel Secretary General Carl-Diem-Weg 3 50933 Köln GERMANY Tel: +49 221 4912991 Fax: +49 221 4971280 Email: iaks@iaks.info	<b>Trim and Fitness International Sport for All Association (TAFISA)</b> Prof. Dr. Jürgen Palm Hubertusanlage 32 63159 Heusenstamm GERMANY Tel: +49 6106 4421 Fax: +49 6106 5399 Email: juergenpalm@aol.com	<b>International Association for Sports Information (IASI)</b> Alain Poncet President 11, avenue du Tremblay 75012 Paris FRANCE Tel: +33141744119 Fax: +33148081960 Email: alain.poncet@insep.fr
<b>International Federation of Adapted Physical Activity (IFAPA)</b> Prof. Dr. Gregory Reid President IFAPA 475 Pine Avenue West Montreal, Quebec H2W 1S4 CANADA Tel: +1 514 398 4184 ext. 0578 Fax: +1514 398 4186 Email: gregory.reid@mcgill.ca	<b>World Commission of Science and Sports (WCSS)</b> Prof. Dr. Thomas Reilly President 15-21 Webster Street L3 2ET Liverpool UNITED KINGDOM Tel: +44 151 2314323 Fax: +44 151 1314353 Email: t.p.reilly@livjm.ac.uk	<b>International Society for the Advancement of Kinanthropometry (ISAK)</b> Prof. Dr. Hans de Ridder Secretary General Potchefstroom University for CHE 2531 Potchefstroom SOUTH AFRICA Tel: +27 18 2991791 Fax: +27 18 299 1825 Email: mbwjhdr@puknet.puk.ac.za

**International Council for Coach Education**

Dr. Uri Schaefer  
President  
Wingate Institute of Physical Education and Sport  
42902 Netanya  
ISRAEL  
Tel: +972 9 8639544  
Fax: +972 9 8639513  
Email: uris@wingate.org.il

**International Society for the Sociology of Sport (ISSA)**

Dr. Mari-Kristin Sisjord  
The Norwegian University of Sport and Physical Education  
P.O. Box 4014 Ullevaal Stadion  
0807 Oslo  
NORWAY  
Tel: +47-23 26 24 26  
Email: mari.kristin.sisjord@nih.no

**International Association of Physical Education and Sport for Girls and Women (IAPESGW)**

Prof. Dr. Margaret Talbot  
President  
Address – See Executive Board

**International Society for the History of Physical Education and Sport (ISHPES)**

Prof. Dr. Thierry Terret  
President  
Université Lyon 1 - CRIS  
27-29 Bd du 11 novembre 1918  
69622 Villeurbanne cedex  
France  
Tel: +33 472 43 10 92  
Fax: +33 472 44 80 27  
Email: Thierry.Terret@univ-lyon1.fr

**International Society for Comparative Physical Education and Sport (ISCPES)**

Prof. Dr. Jan Tolleneer  
Tervuursevest 101  
3001 Leuven  
BELGIUM  
Tel: +32 16 329005  
Fax: +3216329196  
Email: Jan.Tolleneer@kulak.ac.be

**Fédération Internationale d'Education Physique (FIEP)**

Prof. Dr. Manoel José Gomes Tubino  
President  
Rua Souza Lima 185  
22081-010 Rio De Janeiro  
BRAZIL  
Tel: +55 215217850  
Fax: +55 215219833  
Email: manoeltubino@aol.com

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Address – See Executive Board

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Dr. Karin A. E. Volkwein  
Address – See Executive Board

**WomenSport International**

Prof. Kari Fasting  
Vice President  
The Norwegian University  
NIH, Box 4014, Ulleval Stadion  
Sognsv. 22 NO-0806 0806 Oslo  
NORWAY  
Tel: +47 23262405  
Fax: +47 23262414  
Email: Kari.Fasting@nih.no

## Editorial Board

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Address- See Executive Board

**Ms Gretchen Ghent**

University of Calgary Law Library  
2500 University Dr. NW  
T2N 1N4 Calgary  
AB Canada  
Tel: +1 403 220 6097  
Fax: +1 403 282 6837  
Email: ggghent@ucalgary.ca

**Prof. Dr. Herbert Haag**

Christian-Albrechts-Universität Kiel  
Olshausenstrasse 74  
24098 Kiel  
GERMANY  
Tel: +49 4318803770  
Fax: +49 431 8803773  
Email: sportpaed@email.uni-kiel.de

**Dr. Denise Jones**

University of the Western Cape  
Private Bag 7535  
Belleville  
SOUTH AFRICA  
Tel: +27 21 959 2245  
Fax: +27 21 959 3688  
Email: jjones@iafrica.com, djones@uwc.ac.za

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Address- See Executive Board

**Dr. Pekka Oja**

UKK Institute  
Tampere  
FINLAND  
Tel: +358 3 2829 111  
Fax: +358 3 2829 559  
Email: pekka.oja@uta.fi

**Dr. Jonathan Reeser**

Advisor  
Marshfield Clinic  
1000 North Oak Avenue  
54449 Marshfield, Wisconsin  
USA  
Tel: +1 715 387 5327  
Fax: +1 715 387 5776  
Email: jreeser@tznnet.com

**Dr. William F. Stier**  
State University of New York  
College at Brockport  
350 New Campus Drive NY  
14420 Brockport, New York  
USA  
Tel: +1 716 395 5331  
Fax: +1 716 393 2771  
Email: bstier@brockport.edu

**Assoc. Prof. Andrew Hills**  
Advisor  
Queensland University of  
Technology  
Victoria Park Rd  
4059 Kelvin Grove  
AUSTRALIA  
Tel: +61 73864 3286  
Fax: +61738643980  
Email: a.hills@qut.edu.au

**Ex-Officio Member**  
Ms. Amanda Smyth  
Publications and Scientific Affairs  
Manager  
ICSSPE Executive Office  
Am Kleinen Wannsee 6  
14109 Berlin  
GERMANY  
Tel: +4930 80500360  
Fax: +49 30 8056386  
Email: asmyth@icsspe.org

**Ex-Officio Member**  
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Address- See Executive Board

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Address- See Executive Board

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**World Commission of Science  
and Sports (WCSS)**  
Prof. Dr. Thomas Reilly  
President  
15-21 Webster Street  
L3 2ET Liverpool  
UNITED KINGDOM  
Tel: +44 151 2314323  
Fax: +44 151 1314353  
Email: t.p.reilly@livjm.ac.uk

**International Committee of Sport  
Pedagogy (ICSP)**  
Mag. Julika Ullmann  
Chairperson  
Rennbahnstr. 29  
3109 St. Pölten  
AUSTRIA  
Tel: +2742 280 4570  
Fax: +2742 280 1111  
Email: julika.ullmann@lsr-noe.gv.at

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