



Symposium: Evidence-Based Classification

Viola Altmann, Sint Maartenskliniek, rehabilitation centre, Nijmegen, The Netherlands

Debbie Van Biesen, Faculty of Kinesiology and Rehabilitation Sciences, University of Leuven, Belgium

Yves Vanlandewijck, Faculty of Kinesiology and Rehabilitation Sciences, University of Leuven, Belgium; Chairperson IPC Sports Science Committee

The Classification Code of the International Paralympic Committee (IPC), inter alia, mandates the development of evidence-based systems of classification. The IPC position stand provides a scientific background for classification in Paralympic sport, defines evidence-based classification, and provides guidelines for how evidence-based classification may be achieved.

Since the inception of the concept of evidence-based classification, some excellent papers have been published on applications of elements of this concept in different sports and in different impairment groups. To the authors' knowledge, however, overall conceptual applications of evidence-based classification have not been published yet. Therefore, this symposium will provide an update of evidence-based classification research against the given conceptual background; applications will be made to wheelchair rugby and to sports for athletes with intellectual impairment.

Presentations

Yves Vanlandewijck

Evidence-Based classification

Viola Altmann

Evidence-Based classification: conceptual application to wheelchair rugby

Debbie Van Biesen

Evidence-Based Classification: conceptual application to sports for athletes with intellectual impairment



Symposium: Athlete Health and Performance

Ciro Winckler, Sao Paulo Federal University, Brasil; University of Campinas, Brasil; member IPC Athletics Coach Council; Brazilian Paralympic Committee Athletics Technical Director

Raymond So, Hong Kong Sports Institute; member IPC Sports Science Committee

In the world of competitive sport, it has become increasingly clear in recent years that individual success at the elite level is a function of the complex interplay of multiple factors acting in systemic concert. Apart from individual talent, and expert coaching, achieving and maintaining an edge over competitors requires a comprehensive support infrastructure to minimize risk (health) and maximize results (performance). This symposium will present the current state-of-the-art practice of scientific support services for elite disabled sports, which include Sport Medicine, Sport Biomechanics, Sport Psychology, Sport Nutrition and Strength & Conditioning.

Presentations

Ciro Winckler

Interdisciplinary approach in Paralympic Athletics: crossroads between experience and Science in evaluation and training monitoring

Raymond So

The application of Bio-Psycho-Social paradigm on developing high performance Paralympic athletes



Symposium: Athletes' and Coaches' Education - Strategies and Tools to Improve Athletic Performance

Daniel Theisen, Sports Medicine Research Laboratory, Luxembourg Institute of Health

Osnat Fliess-Douer, Zinman College of Physical Education and Sport Sciences at the Wingate Institute, Netanya Israel; member IPC Sports Science Committee

Daniela Luchina, Argentinean Paralympic Academy; (athlete) member IPC Sports Science Committee

Athletic performance defined as carrying out of specific physical routines or procedures by one who is trained or skilled in physical activity. Performance is influenced by a combination of physiological, psychological, and socio-cultural factors.

Performance Analysis provides the athletes and coaches with objective information that helps them understand performance. This process is underpinned by systematic observations and assessments, which provide valid, reliable and detailed information relating to performance. This objective data facilitates enhanced feedback between coaches and athletes. Subsequent interventions can then lead to a greater performance impact. Essentially, it is about telling the athlete what actually happened as opposed to what they perceived to be happening.

Successful coaching depends, among other things, on the accuracy of the observation and how well it is analysed. "Research shows that on average, athletes and coaches can only recall 30% of performance correctly - performance analysis helps with the remaining 70%" (Stafford Murray - EIS Lead Performance Analyst).

This symposium is particularly useful for trainers and athletes, and it aims to present strategies and tools to improve athletic performance.



Presentations

Daniel Theisen

Strategies to improve physiological responses and athletic performance

Osnat Fliess-Douer

Current equipment and technological innovation to monitor athletic performance

Daniela Luchina

Athlete perspective on performance development



Symposium: Determinants of Paralympic Success

Simon Darcy, Cosmopolitan Civil Societies Research Centre, University of Technology Sydney, Australia

David Legg, Department of Physical Education and Recreation Studies, Mount Royal University Calgary, Canada; Member IPC Sports Science Committee

The Paralympic Summer Games since the creation of the IPC in 1989 has grown from 83 participating nations in 1992 in Barcelona to 164 in 2012 in London. In the Paralympic Winter Games a similar growth has occurred with 24 nations participating in 1992 in Albertville to 45 in 2014 in Sochi. With this growth of nations has been a corresponding interest and challenge in determining what contributes to Paralympic success. In this presentation the two speakers will review the current research pertaining to Paralympic participation and success and facilitate a discussion that will hopefully lead to new understanding of how athletes, administrators, coaches, and sport scientists can encourage even greater participation and performance.

Presentations

Simon Darcy

A Critical Examination of Paralympic Participation

David Legg

Pathways to Paralympic Success



Symposium: Wintersports

Aleix Vidal, Centro Médico Teknon, Barcelona, Spain; Director of Medical Services and Sport Clinic Baqueira-Beret Ski resort and Boi-Taüll Ski Resort, Spain

Stefan Lindinger, Dep. of Sport Science and Kinesiology, University of Salzburg, Austria

Winter Sports such as Nordic skiing, Alpine skiing, and Snowboard are complex but have been investigated thoroughly in the able-bodied. However, skiing for athletes with an impairment still lacks from scientifically-based treatments but some research groups recently started to systematically work on these sports. Biomechanical aspects, training adaptations, injury treatment and prevention, and classification issues in order to create more fairness and comparability (evidence-based classification) are now being studied. One of the main questions is how, for example, core stability in spinal cord injury (complete and incomplete) affects performance and life style in daily life activities.

Presentations

Aleix Vidal

Stefan Lindinger

Comparison study of snowsport related injuries

Biomechanical and motor learning aspects in disabled and abled skiing sports – training, performance, classification and perspectives



Symposium: Performance Enhancement

Jonas Danvind, Sport Technology Education at MidSweden University (Östersund, Sweden), Sweden4All

Toni Pascual, Hospital del Mar Medical Research Institute (Barcelona, Spain); Chairperson IPC Anti-Doping Committee

Many people assume "performance enhancement" means taking steroids. This is simply not the case. Performance enhancement is more appropriately referred to as an ergogenic aid. This is: the application of any physical, mechanical, nutritional, psychological or pharmacologic procedure or aid that improves physical work capacity or athletic performance. So performance enhancement can be anything that improves your abilities for a specified activity. Examples of some ergogenic aids include: studying film of the opposing team, working on body position for cycling, tweaking the mechanics of your jump shot, wearing a squat suit for powerlifting competitions, visualizing yourself succeeding in a sport, etc.

As long as there are no detrimental health implications or violation of the rules of the sport, along with maintaining integrity, ethics and equity in access; then science should be allowed and encouraged in the quest to achieve sporting performance.

In this symposium two performance enhancement mechanisms will be addressed.

1. Avoiding the use of prohibited substances or methods and the possible risks associated with nutritional supplements require careful attention of young athletes and require appropriate anti-doping education. Strategies hereto will be framed within the perspective of the current scientific knowledge and in reference to the World and IPC Anti-Doping Code that guide athletic performance in the Paralympic Movement.

2. When science encounters technology, sports rules should be developed in such a way that performance is determined principally by physical prowess, rather than by technology. In that way, sporting organisations create an environment where the skills of the sport can be initially nourished, and through the experience of competition the ultimate sporting performance is obtained. The value and impact of (access to) technology is an important facet of an athletic career, and will be framed in this symposium by means of examples in wintersports.

Presentations

Jonas Danvind

Toni Pascual

TITLE TO ADD

Pharmacological aids to Performance: challenges of the prohibited list