

A position stand guiding the sport-specific classification of athletes with vision impairment

What you need to know

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International
Paralympic
Committee

Classification Research Partner



IS VERDER KIJKEN

PARALYMPIC VI SPORTS



Athletics



Swimming



Judo



Cycling



Triathlon



Goalball



Football



Equestrian



Alpine
skiing

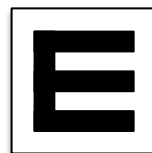
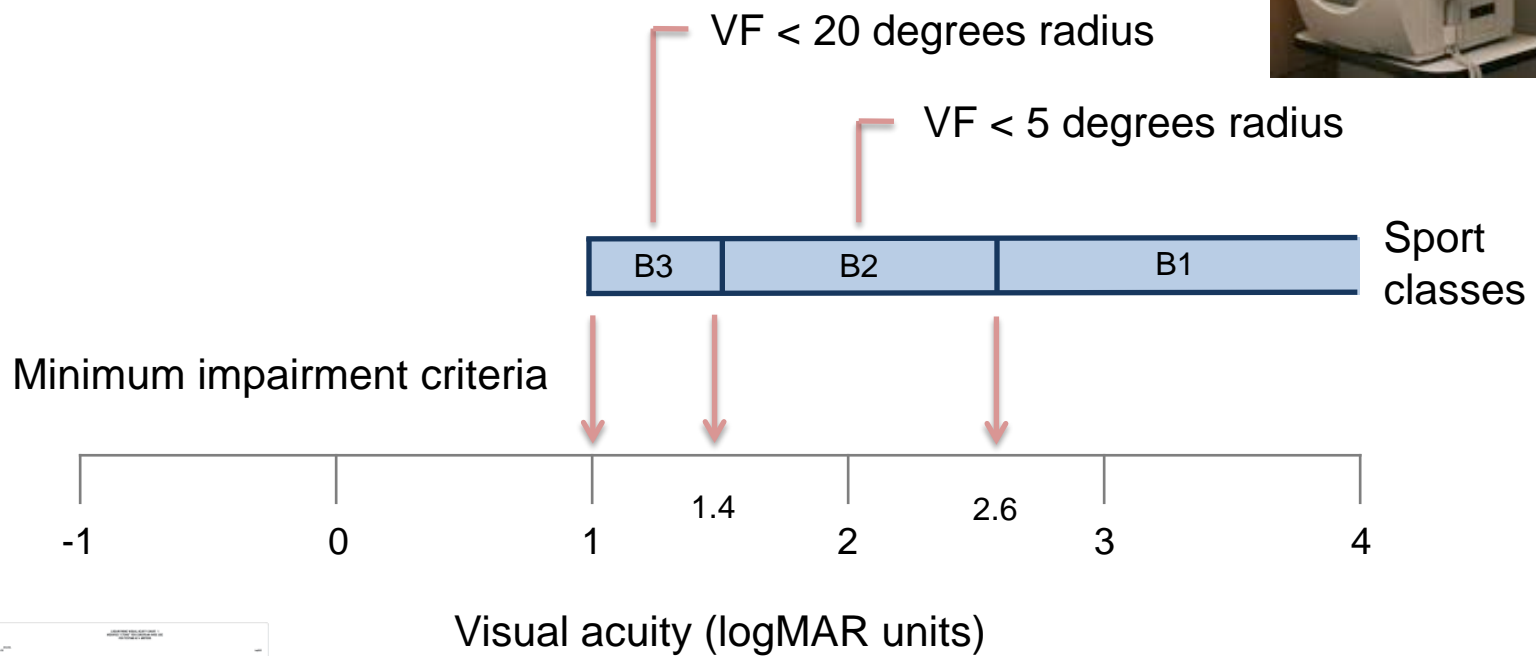


Nordic
skiing



Rowing

CURRENT VI CLASSIFICATION



UNIQUE CHALLENGES IN VI SPORT



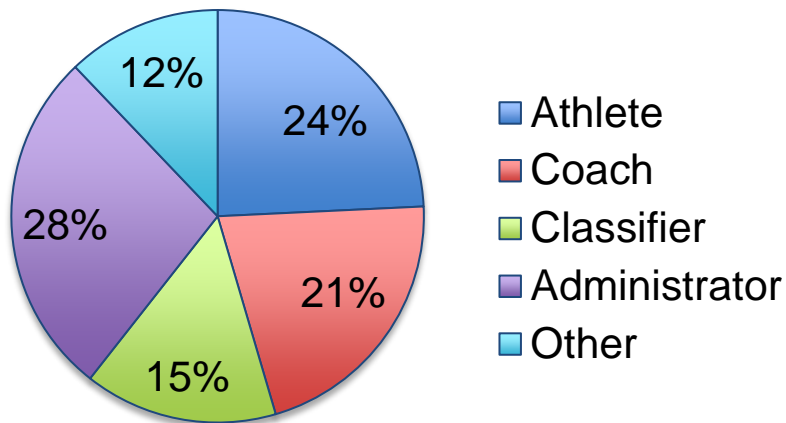
AIM: to provide guidance for how sport-specific classification should be achieved in sports for athletes with vision impairment.

METHOD

1. EXPERT CONSULTATION



Expert meeting 23-25th Jan 2015



This project was supported by the Agitos Foundation Grant Support Scheme 2014-15



METHOD

2. STAKEHOLDER CONSULTATION

Original article

Expert consensus statement to guide the evidence-based classification of Paralympic athletes with vision impairment: a Delphi study

H J C (Rianne) Ravensbergen,¹ D L Mann,¹ S J Kamper²

Abstract
Background: Paralympic sports are required to develop evidence-based systems that allocate athletes into 'classes' on the basis of the impact of their impairment on sport performance. However, sports for athletes with vision impairment (VI) classify athletes solely based on the WHO criteria for low vision and blindness. One key barrier to evidence-based classification is the absence of guidance on how to address classification issues unique to VI sports. The aim of this study was to reach expert consensus on how issues specific to VI sport should be addressed in evidence-based classification.
Method: A four-round Delphi study was conducted with 25 participants who had expertise as a coach, athlete, classifier and/or administrator in Paralympic sport for VI athletes.
Results: The experts agreed that the current method of classification does not fulfil the requirements of Paralympic classification, and that the system should be different to each sport to account for the sports' unique visual demands. Instead of relying only on tests of visual acuity and visual field, the panel agreed that additional tests are required to better account for the impact of impairment on sport performance. There was strong agreement that all athletes should not be required to wear a blindfold as a means of equalising the impairment during competition.
Conclusions: There is strong support within the Paralympic movement to change the way that VI athletes are classified. This consensus statement provides clear guidance on how the most important issues specific to VI should be addressed, removing key barriers to the development of evidence-based classification.

Introduction
 Classification is a fundamental part of many sports. To increase the fairness of competition, athletes can be placed into classes on the basis of their gender, age (in youth sports), weight (eg, martial arts) or level of competence (eg, the handicap system in golf). In Paralympic sports, athletes are classified on the basis of their impairment to ensure that the winner is the best athlete rather than the one with the least impairment. The International Paralympic Committee (IPC) states that Paralympic classification should 'minimise the impact of eligible impairments on the outcome of competition'; however, the process of designing a classification system that can fulfil this objective is not straightforward. Historically, Paralympic athletes have been classified using a medical classification system where the class an athlete competes in is determined by a clinical grading of their medical condition (eg, lesion in spinal cord injury or lower-limb amputation in impairment (VI)). Yet there is typically no one to show that those different clinical gradings in consensus differences in sport performance. In 2007, the IPC Classification Code¹ was revised requiring IPC member sports to develop their evidence-based systems in which athletes are placed according to the limitations in their ability to perform the sport rather than on the basis of medical diagnosis. Here, the way in which impairment affects performance in a sport is the basis for classification rather than the grade of the medical condition causing the impairment. To develop this type of classification systems, specific evidence is required to show that athletes within each class have impairments that have similarly equitable impact on performance in sport. As a result, an evidence-based classification system is necessarily sport-specific because impact of an impairment will vary depending on the demands of the sport.

Despite the requirement for Paralympic sports to develop their own evidence-based systems of classification, many sports still use a medical system. In fact, each of the 11 VI sports presently in Paralympic programme continue to rely on visually identical versions of the medical classification of the sport, athletes currently use in one of up to three different classes based on WHO's criteria for low vision and blindness,² may result in unfair competition, as there is evidence to show that (1) the impact that differs within one class have on sport performance is similar, but that this impact is progressively greater in each of the three classes, and that (2) the impact on performance is equitable for all sports (that sports have different visual demands, eg, tennis vs football).

In 2011, the IPC adopted a Position Stand designed to grade classification relevant Paralympic sports.³ However, the IPC Position Stand was developed largely from the perspective of athletes with physical impairments, and in cases does not provide guidance on how issues unique to VI sport should be addressed. Moreover, one possible approach to equalise impact of VI during competition would require all athletes to wear an eyeshade (film) to ensure that the athletes all possess an equal level of impairment during competition (ie, full blindness) and to eliminate the need for further classification. Although this approach may seem appropriate,

Running Head: POSITION STAND FOR VI CLASSIFICATION

International Paralympic Committee and International Blind Sports Federation position stand on the sport-specific classification of athletes with vision impairment

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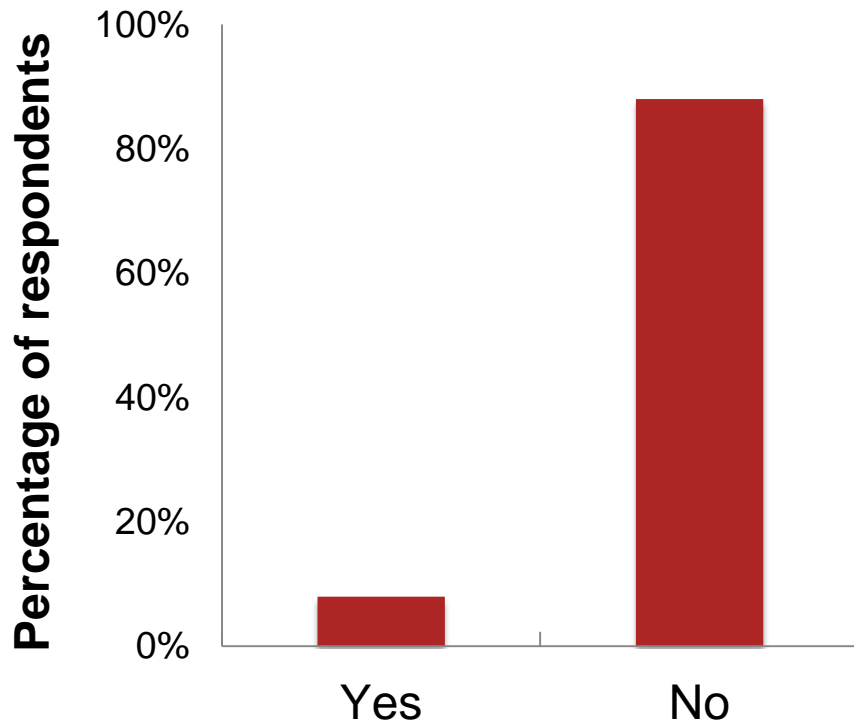
Expert consensus statement

VI Position stand

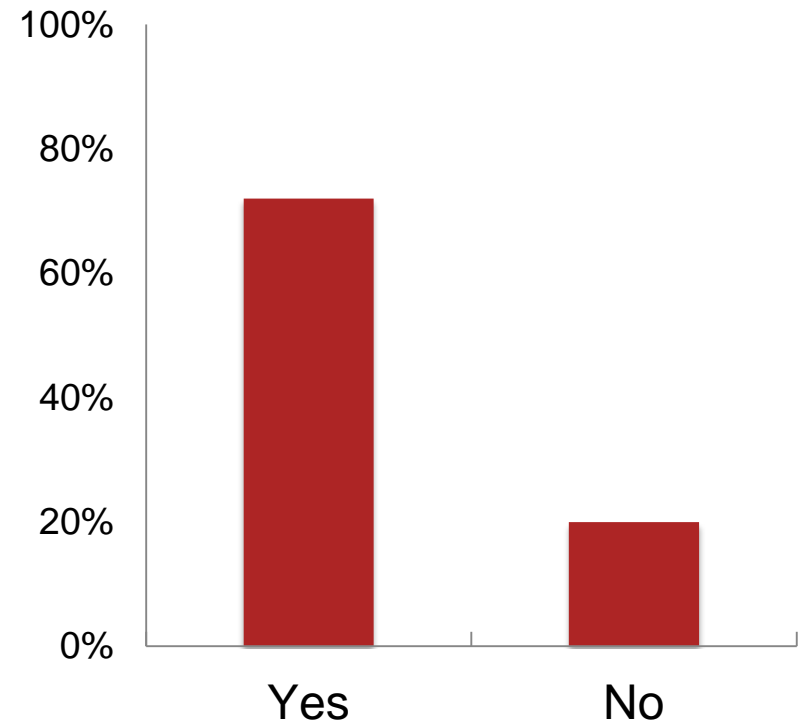
KEY RECOMMENDATIONS

1. THE USE OF BLINDFOLDS

Should all VI athletes be required to use a blindfold?

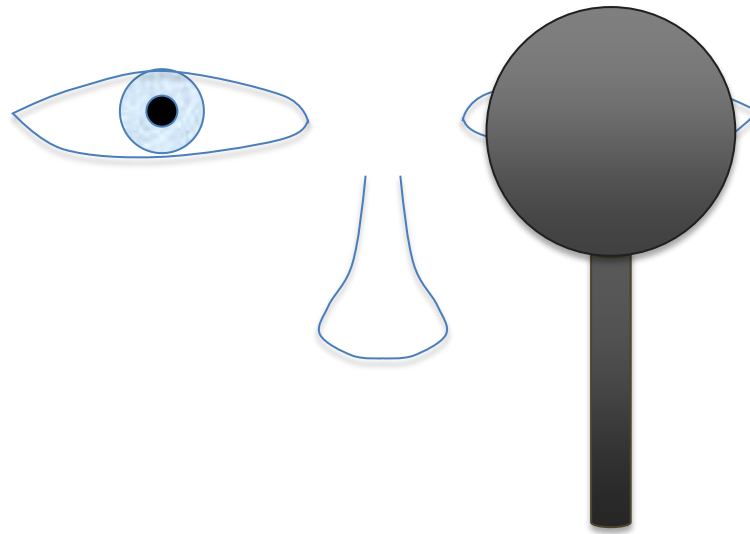


Are there any situations in which blindfolds are appropriate?



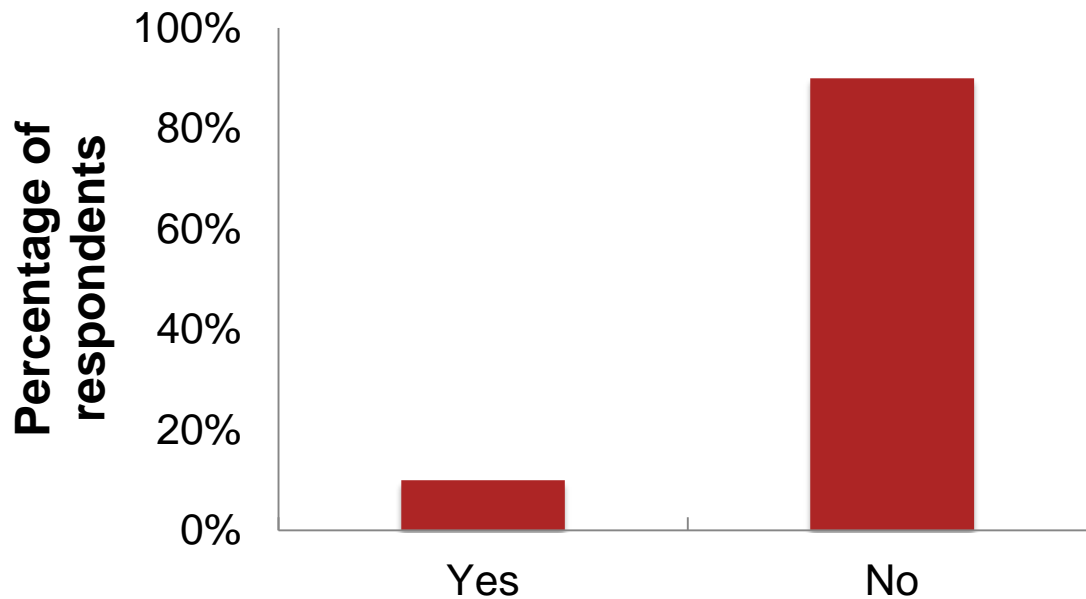
KEY RECOMMENDATIONS

2. TESTING BEST EYE VS. BOTH EYES TOGETHER



3. MORE FUNCTIONAL ASSESSMENT OF VISION

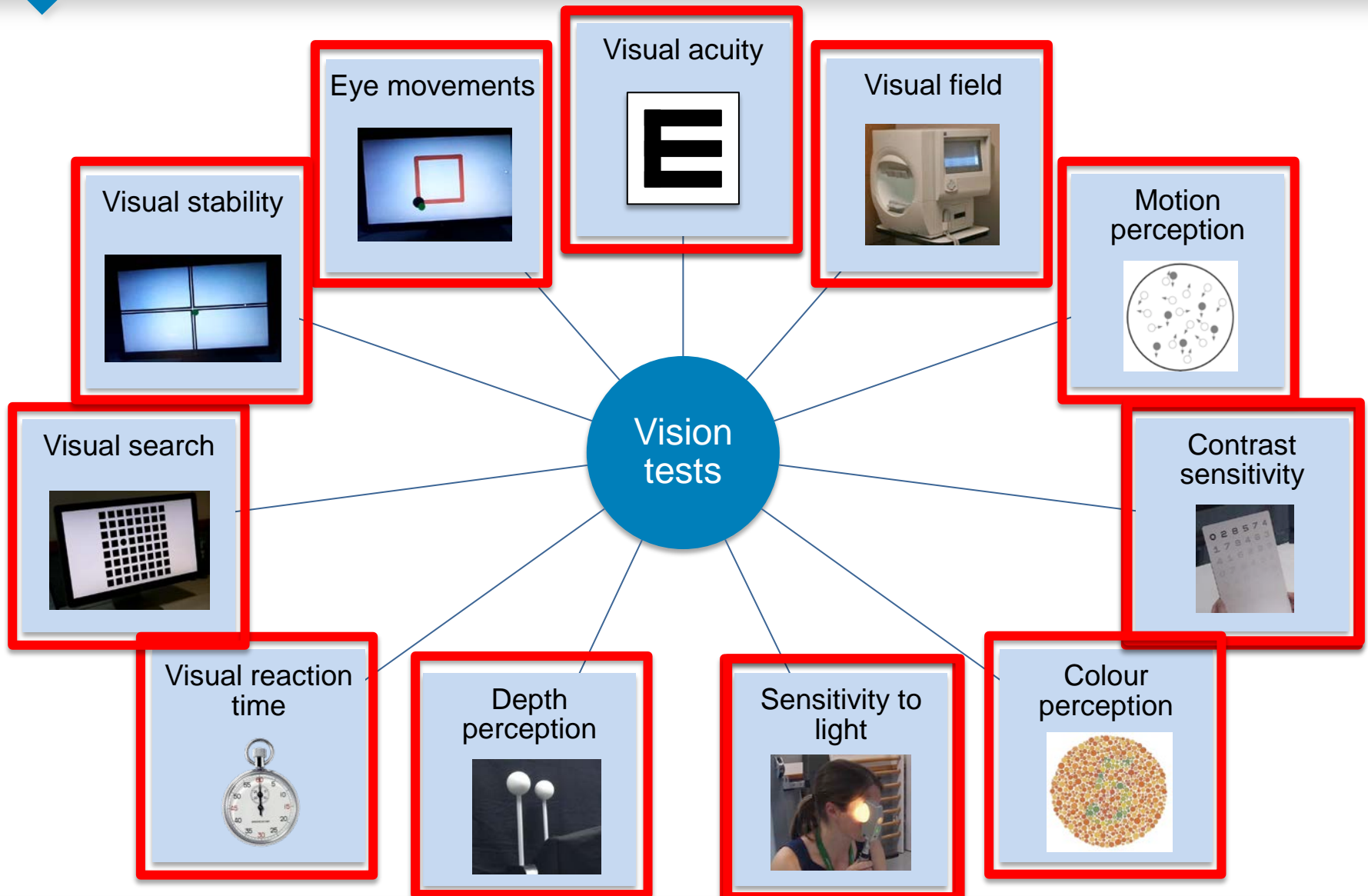
Is the assessment of visual acuity and visual field sufficient for classification?



- Contrast sensitivity
- Sensitivity to light
- Motion perception

KEY RECOMMENDATIONS

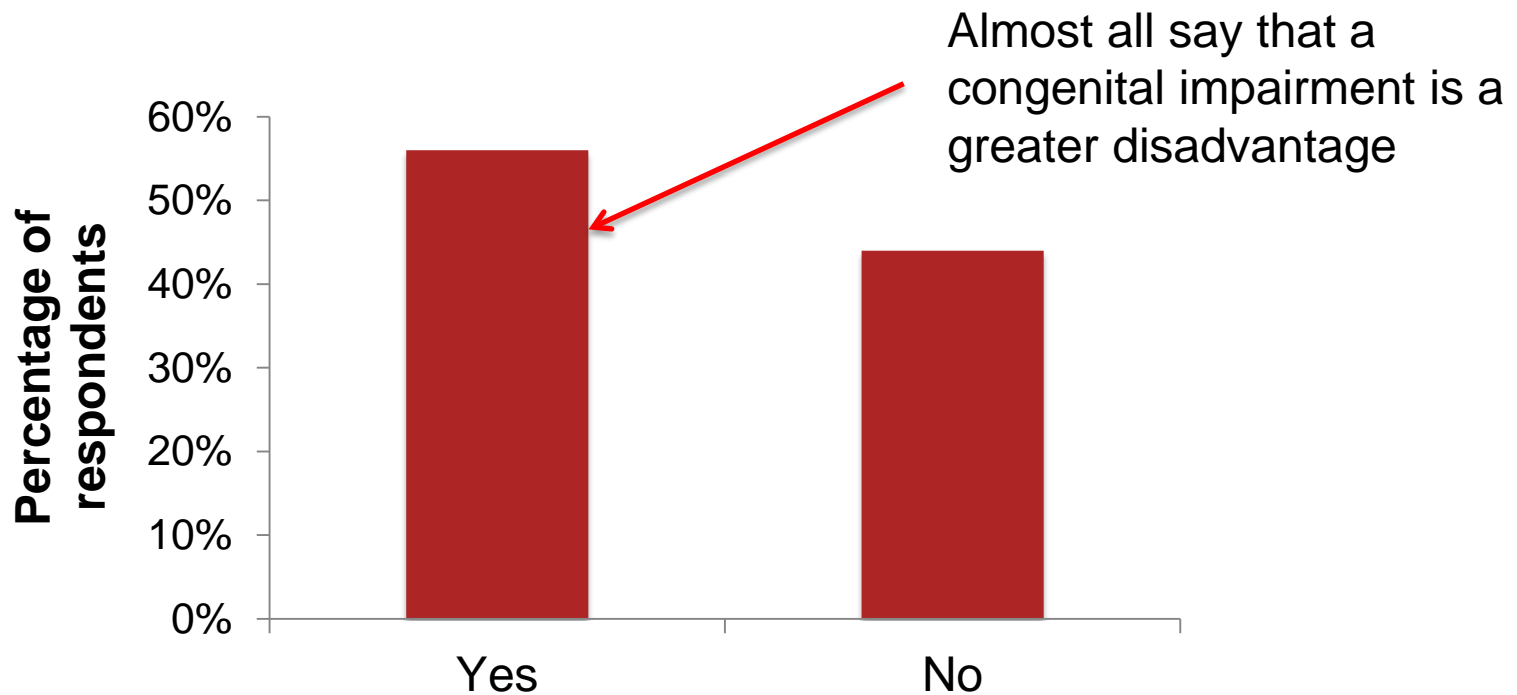
3. MORE FUNCTIONAL ASSESSMENT OF VISION



KEY RECOMMENDATIONS

4. CONGENITAL AND ACQUIRED IMPAIRMENTS

Do you believe that there is a difference in the impact of a congenital and acquired vision impairment on sport performance?



KEY RECOMMENDATIONS

5. ESTABLISHING THE MINIMUM IMPAIRMENT CRITERIA

Unadapted form of the sport



Should be used to establish the minimum impairment criteria

Adapted form of the sport



Should be used to establish the sport classes

ACKNOWLEDGEMENTS



Classification Research Partner

International Paralympic Committee

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International Blind Sports Federation

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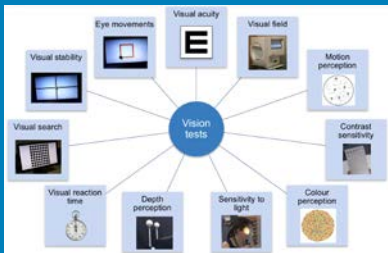
This project is supported by Agitos Research Grants awarded by the Agitos Foundation.

SPORT-SPECIFIC CLASSIFICATION THE PROCESS

STEP 1: Expert consultation

athletes, coaches, administrators, referees, scientists

STEP 2: Measure vision on tests relevant to the sport



STEP 2: Measure ability on sport-specific tests of performance



STEP 3: Establish the relationship between impairment and performance

KEY RECOMMENDATIONS

- (1) whether blindfolds should be used to minimise the impact of VI on the outcome of competition.
- (2) the need to test vision during classification when using both eyes together (i.e., habitual vision) rather than with the best eye only (as is presently done)
- (3) the potential inclusion of new vision tests during classification (e.g., contrast sensitivity, motion and depth perception) to better account for the sport-specific impact of VI on performance
- (4) the need during classification to account for the different types of lighting experienced during competition
- (5) the potential impact on sport performance of the age at which an athlete acquired their impairment
- (6) the minimum level of VI necessary to take part in competition

Background: The IPC Classification Code requires sports to develop an evidence-based classification system that is based on the impact of impairment on performance in that particular sport. However, sports for athletes with vision impairment (VI) classify athletes using a system based on the legal definition of low vision or blindness, employing essentially the same classification system across all VI sports. One key barrier to the development of evidence-based classification in VI sport is the absence of an agreed approach for how to perform research which addresses classification issues unique to athletes with VI.

Purpose: The aim of this position stand is to provide guidance for how sport-specific classification should be achieved in sports for athletes with VI.

Method: A four-round Delphi review of 25 experts in VI sport (athletes, coaches, classifiers, & administrators; Ravensbergen, Mann & Kamper, 2016) uncovered the issues to be addressed in the Position Stand. In response, the stand was developed by the IPC Research and Development Centre for the Classification of Athletes with Vision Impairment, in coordination with the International Paralympic Committee and the International Blind Sports Federation.

Results: On the basis of the expert consultation performed during the Depth review process, we provide guidance on how classification research can be performed to take into account (1) the minimum level of VI necessary to take part in competition; (2) the potential inclusion of new vision tests during classification (e.g., contrast sensitivity, motion and depth perception) to better account for the sport-specific impact of VI on performance; (3) the need to test vision during classification when using both eyes together (i.e., habitual vision) rather than with the best eye only (as is presently done); (4) the need during classification to account for the different types of lighting experienced during competition; (5) the potential impact on sport performance of the age at which an athlete acquired their VI; and (6) whether blindfolds should be used to minimise the impact of VI on the outcome of competition. Three specific research models are presented that can be used to develop sport-specific classification: (1) a correlational model that directly examines the relationship between impairment and sport performance; (2) a simulation model that simulates vision impairment to examine changes in performance in able-sighted athletes; and (3) a component-analysis model that establishes the visual information relied on by skilled able-sighted athletes, and examines the impact of impairment on the ability to pick-up that information.

Conclusion: The recommendations provide a clear pathway for sports to develop an evidence-based system of classification for athletes with vision impairment.

IPC R&D CENTRES FOR CLASSIFICATION



Physical Impairment
University of Queensland
Australia



Intellectual Impairment
University of Leuven
Belgium

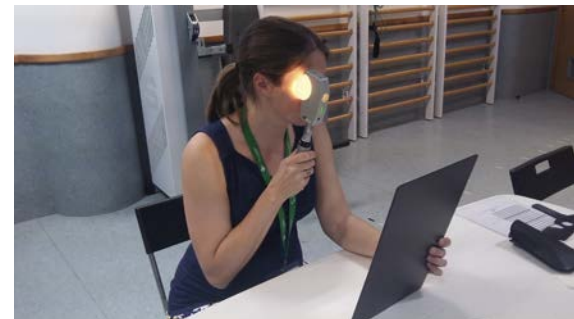
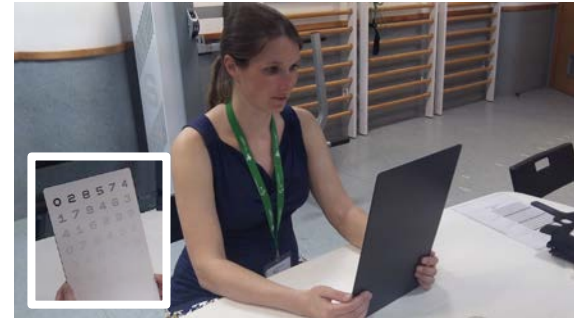
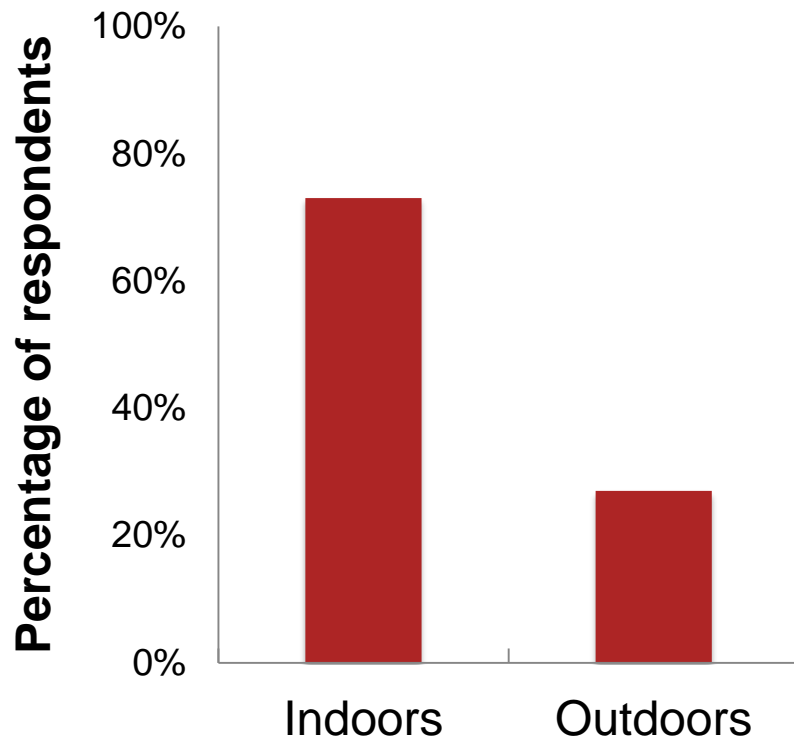


Vision Impairment
Vrije Universiteit Amsterdam
Netherlands

KEY RECOMMENDATIONS

4. THE IMPACT OF LIGHTING CONDITIONS

Where should classification take place for sports played outdoors?



Widespread support for sport-specific classification

VI CLASSIFICATION ACROSS ALL SPORTS

2. VI POSITION STAND

AIM: to provide clear guidance for how classification research can be performed to meet the needs of athletes with VI

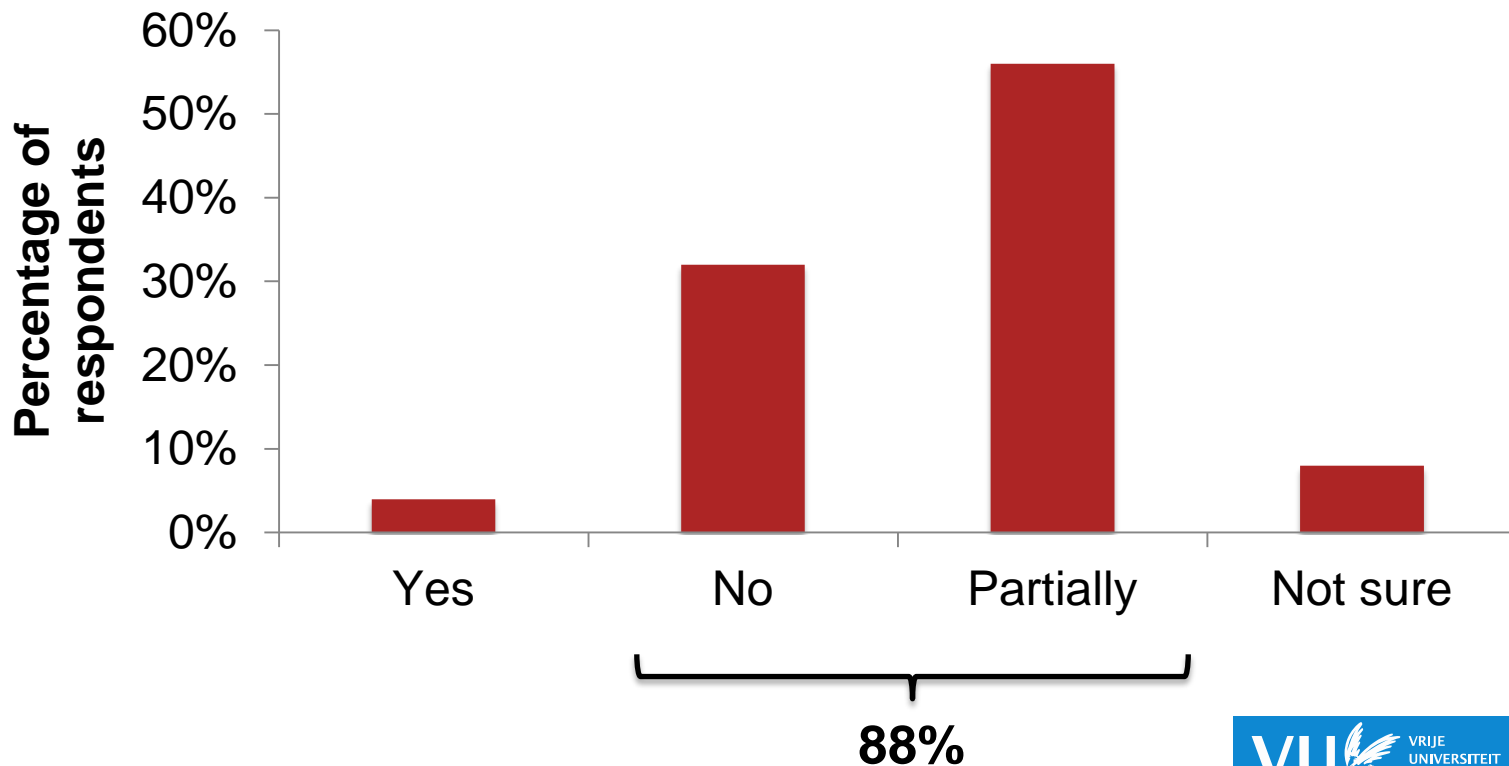


1. The impact of sport rules on VI classification
 - Blindfolds
 - Guides
2. Procedure for the classification of VI athletes
 - Generic vs. sport-specific tests
 - The incorporation of additional tests for VI classification
 - Testing the 'best' eye or both eyes together
 - Ambient lighting during classification
 - Congenital vs. acquired impairments
3. Models for VI Classification research

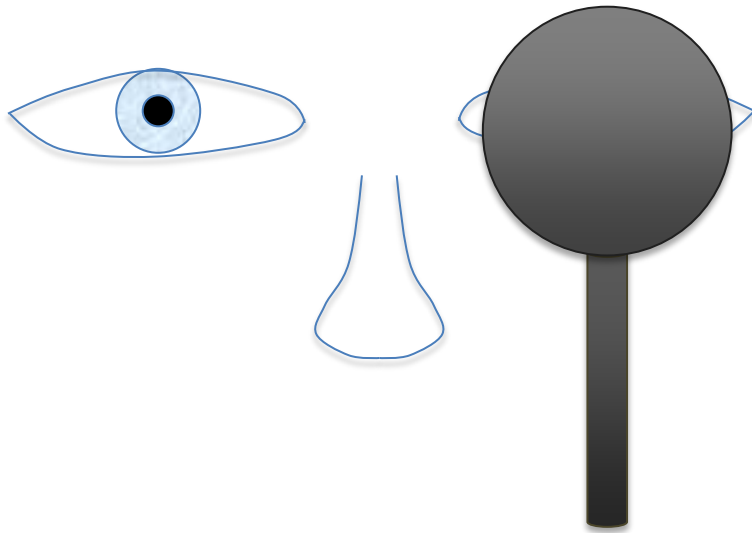
EXPERT CONSULTATION

AIM OF CLASSIFICATION

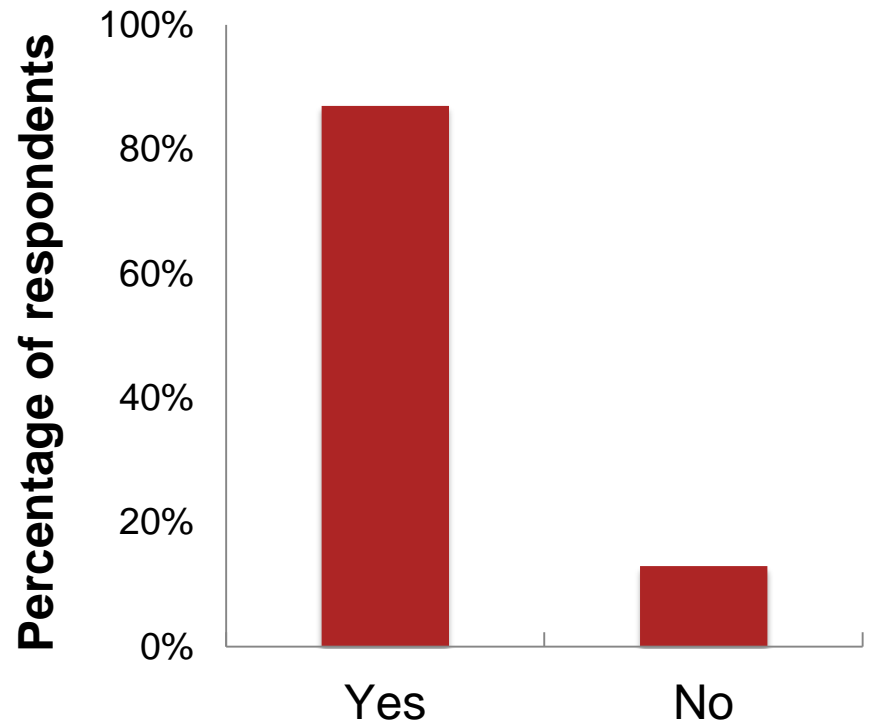
Do you feel that the way that vision impairments are currently classified fulfils the aim to 'minimise the impact of eligible impairments on the outcome of competition'?



2. TESTING BEST EYE VS. BOTH EYES TOGETHER



Should the decision to test one eye or both eyes be sport-specific?



DEVELOPMENT OF SPORT-SPECIFIC CLASSIFICATION

R&D across all sports



VI Swimming



VI Judo



VI Snow sports



VI Shooting



VI Athletics

