FROM A TO Z IN CLASSIFICATION RESEARCH

A	Athlete Classification Code
B	Best-practice implementation
C	Sir Philip Craven
D	Delphi study
E	Evidence based
F	Functions and structures
G	Governing Body
H	Health condition
I	Intentional misrepresentation
J	John Bourke (athletics)
K	Klassification (OK we don't know…)
L	Legitimate
M	Misrepresentation
N	Number of classes
O	Observation in competition
P	Andrew Parsons
Q	Questions
R	Research
S	Sport specific
T	Sean Tweedy
U	Understanding
V	Peter van de Vliet
W	Wheelchair racing
X	Xavi Gonzalez
Y	Yves Vanlandewijck
Z	Zorry, we gave up

From A to Z in Classification Research

How to Initiate Sport-Specific Classification Research (and minimise disasters later on!)

David Mann
Associate Professor
IPC Classification R&D Centre for Vision Impairment
Vrije Universiteit Amsterdam

Classification Research Partner

IS VERDER KIJKEN

HOW TO PERFORM CLASSIFICATION RESEARCH

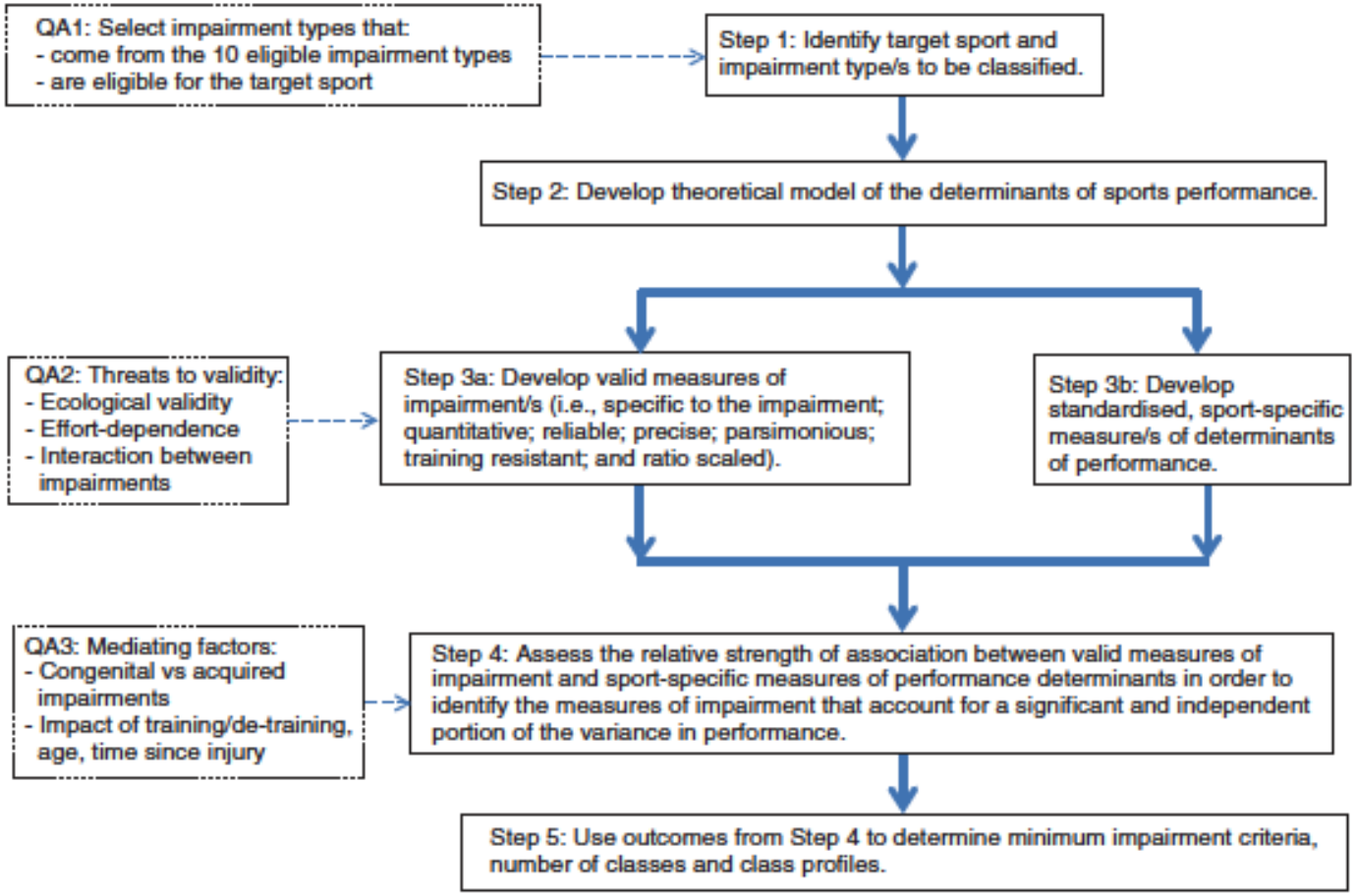


Figure 7.1 Schematic representation of research required for the development of evidence-based systems of classification. The boxes with the solid outlines (Steps 1–5) are essential. The boxes with dashed outlines (QA1–QA3) are not essential to every research program, but are generally important quality assurance (QA) measures.

THE 'IOC BOOK CHAPTER'

Review

International Paralympic Committee position stand—background and scientific principles of classification in Paralympic sport

S M Tweedy,[1] Y C Vanlande

Sports Medicine (2018) 48:2011–2023
https://doi.org/10.1007/s40279-018-0949-6

POSITION STAND

CrossMark

International Paralympic Committee (IPC) and Int[illegible]national Blind Sports Federation (IBSA) Joint Position Stand on the Spo[illegible] Specific Classification of Athletes with Vision Impairment

David L. Mann[1] · H. J. C. Ravensbergen[1]

Watch this space…

Chapter 7

Research needs for the development of evidence-based systems of classification for physical, vision, and intellectual impairments

Sean M. Tweedy,[1] David Mann,[2] and Yves C. Vanlandewijck[3]

[1]University of Queensland, School of Human Movement and Nutrition Sciences, Brisbane, Australia
[2]Research Institute MOVE Amsterdam, Faculty of Human Movement Sciences, VU University, Amsterdam, The Netherlands
[3]Faculty of Kinesiology and Rehabilitation Sciences, KU Leuven, Leuven, Belgium

HOW TO PERFORM CLASSIFICATION RESEARCH

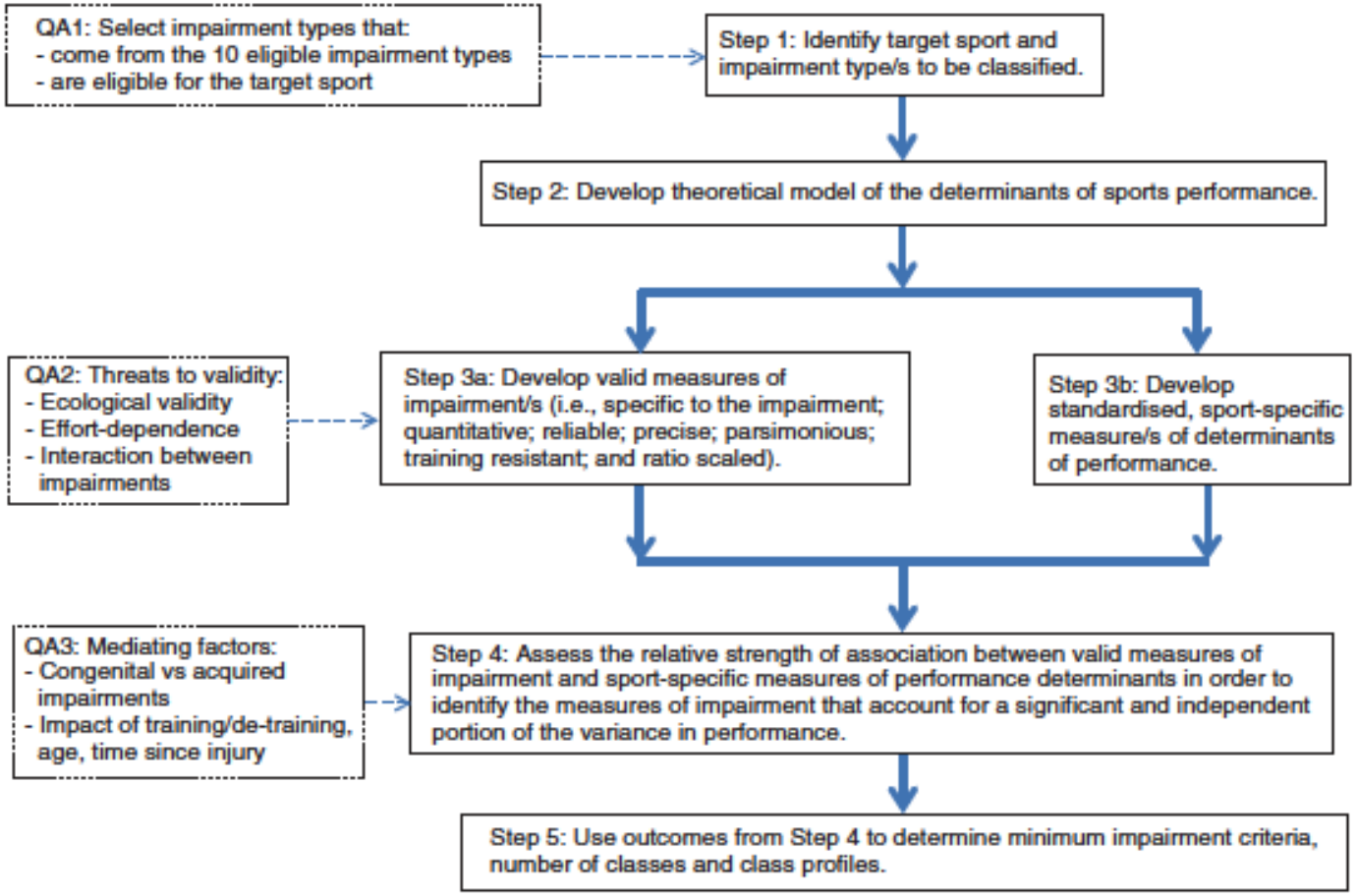
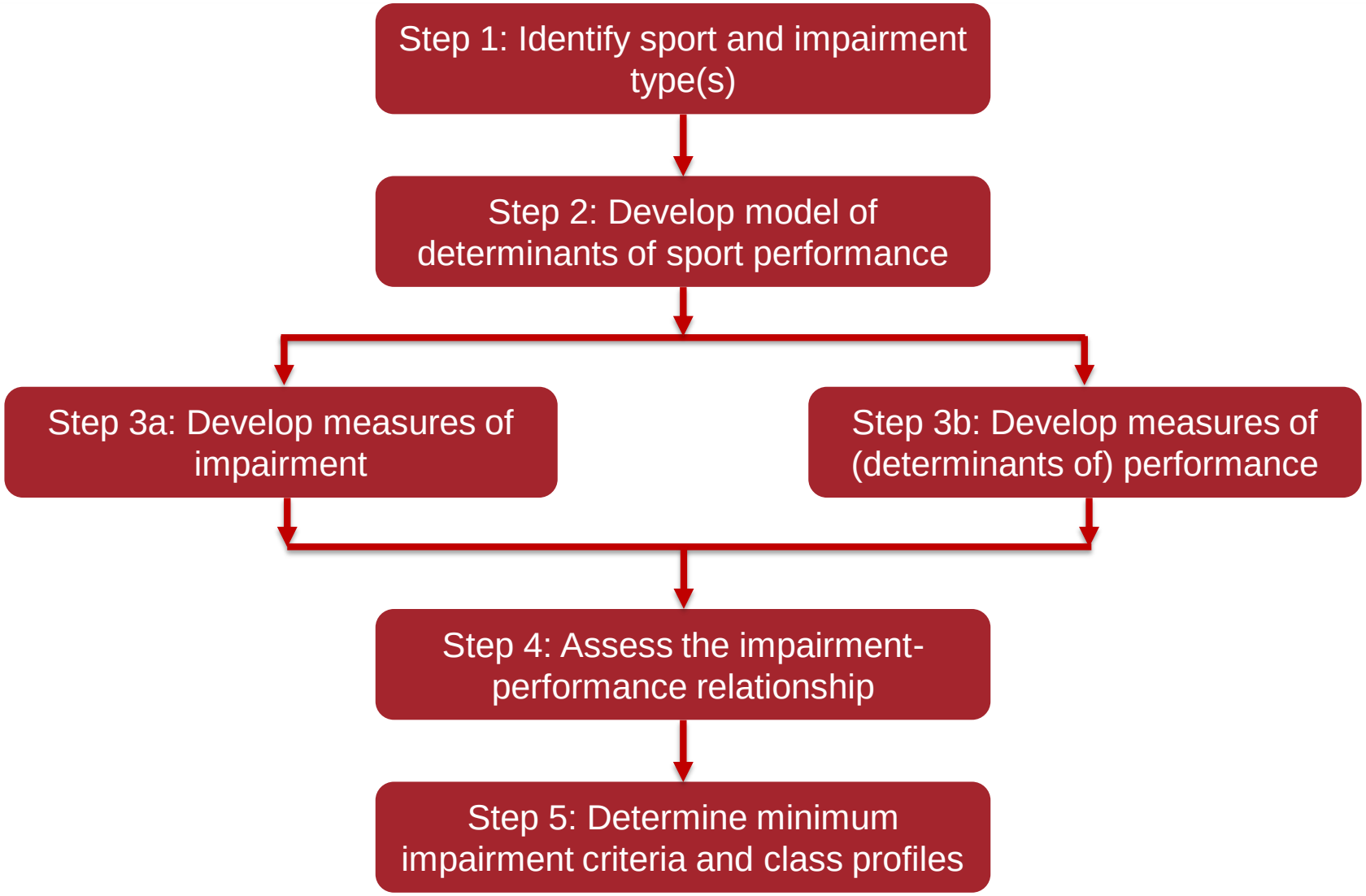
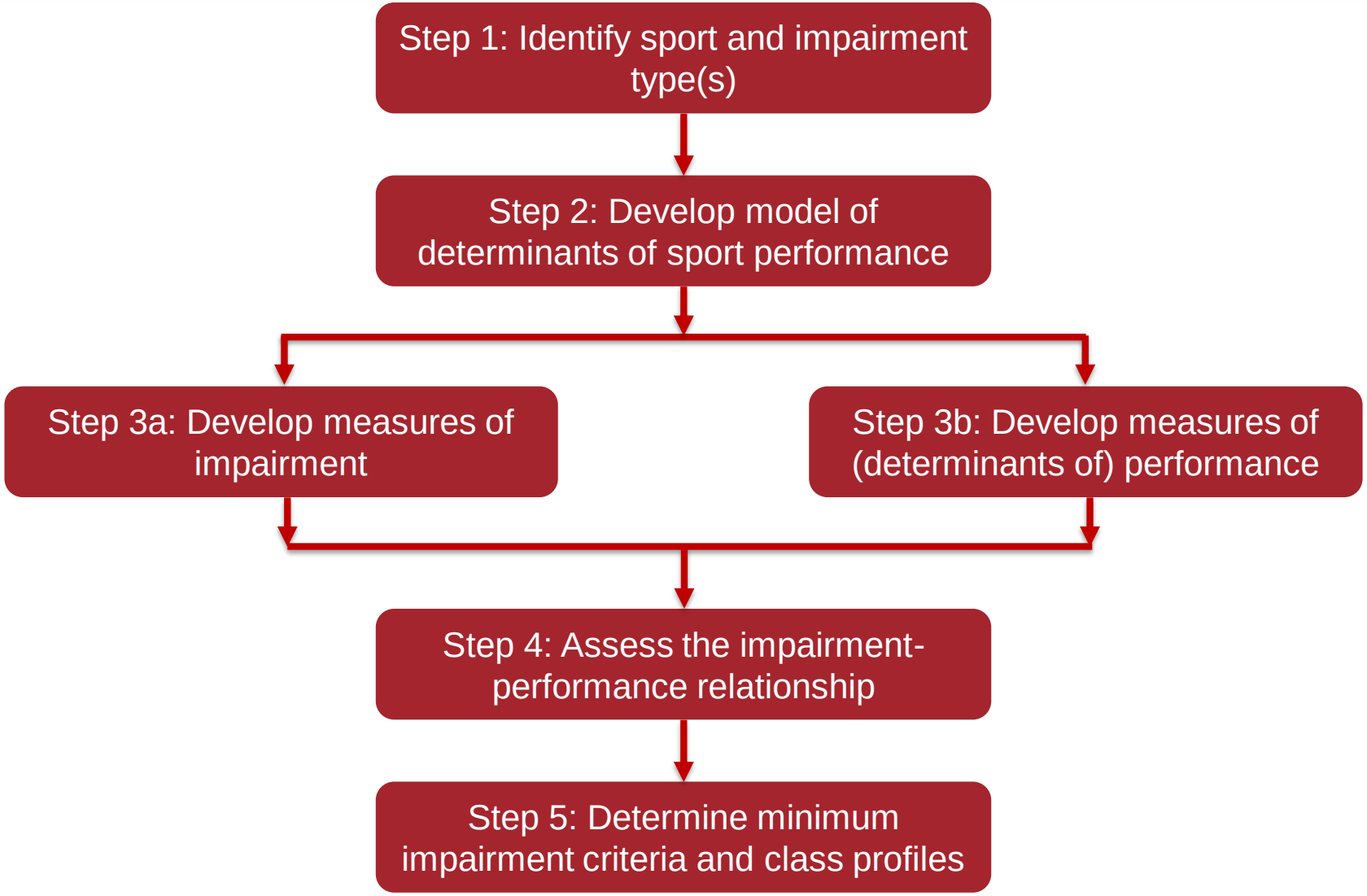


Figure 7.1 Schematic representation of research required for the development of evidence-based systems of classification. The boxes with the solid outlines (Steps 1–5) are essential. The boxes with dashed outlines (QA1–QA3) are not essential to every research program, but are generally important quality assurance (QA) measures.

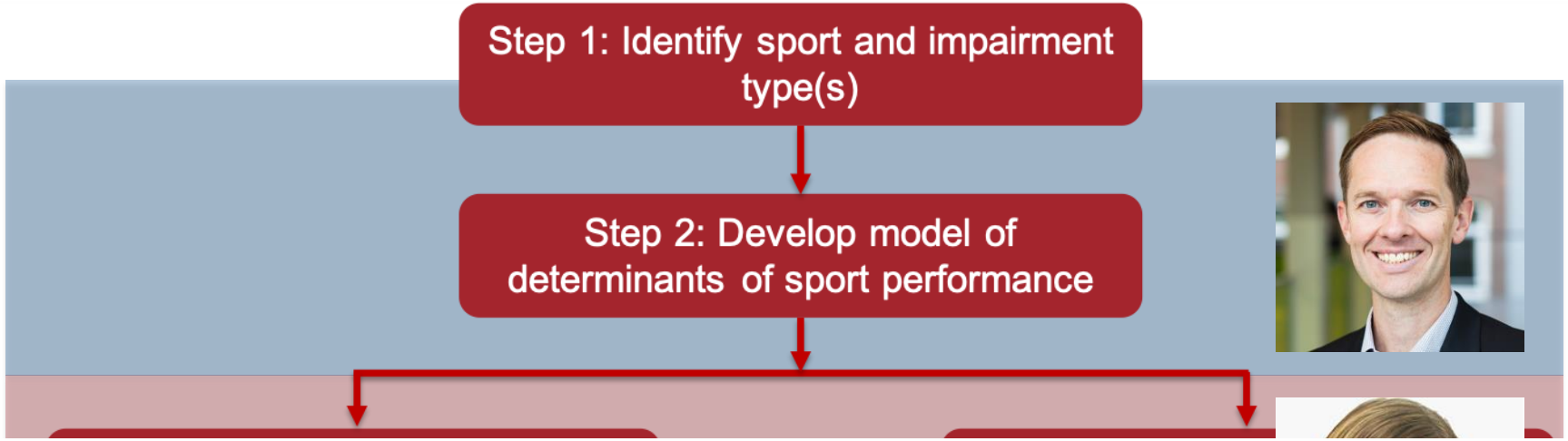
HOW TO PERFORM CLASSIFICATION RESEARCH



HOW TO PERFORM CLASSIFICATION RESEARCH



HOW TO PERFORM CLASSIFICATION RESEARCH

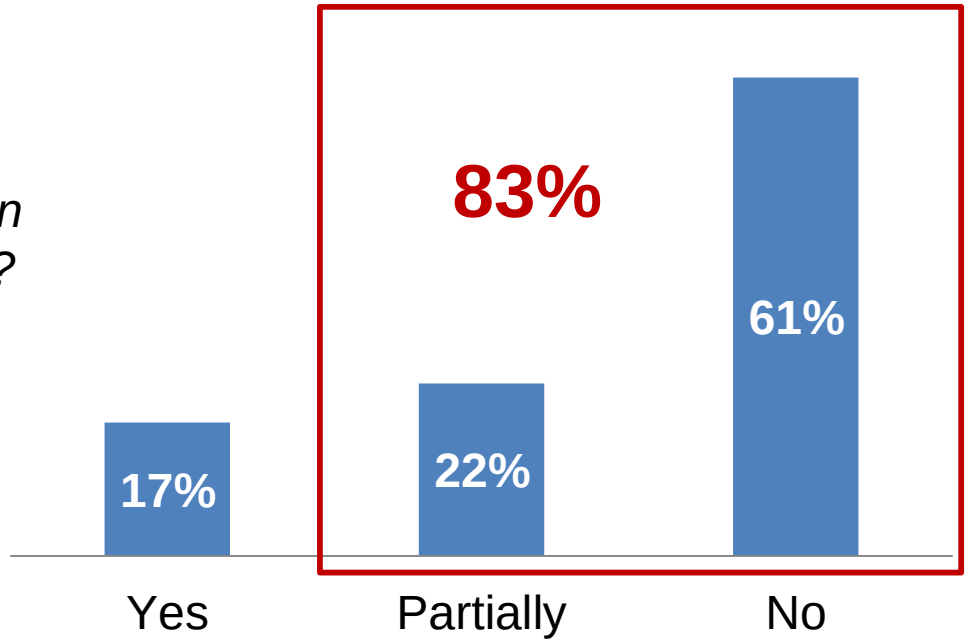


How can we leverage the expertise of para-athletes, coaches, and classifiers to initiate classification research?

DELPHI REVIEW

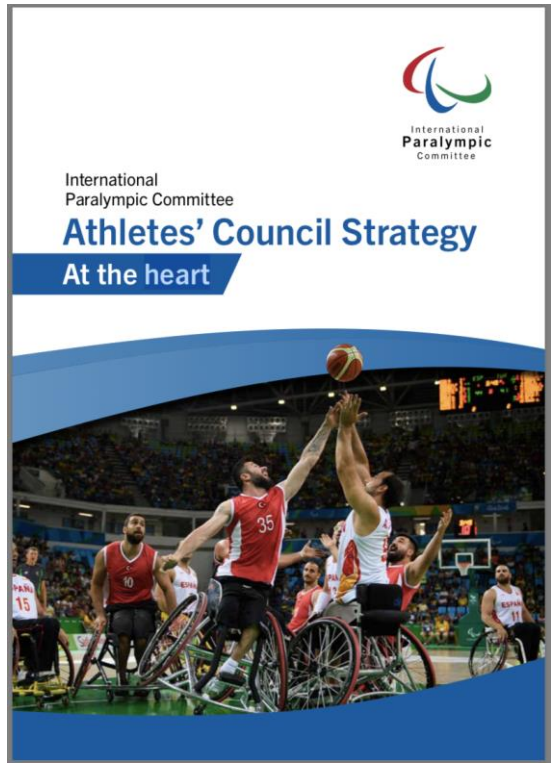
Minimum 15-20 experts

Judo: *Does the current classification system fulfil its aim?*



EXPERT CONSULTATION ALLOWS YOU TO…

ENSURE THE IPC REMAINS AN ATHLETE-CENTRED ORGANISATION



"'At the heart' is about fostering a culture within the Paralympic Movement that lives the values of being athlete-centred. It goes far beyond words on paper and the use of the term "athlete-centred" as a buzz word that, at times, is thrown around but not well understood or fostered among athletes and within organisations."

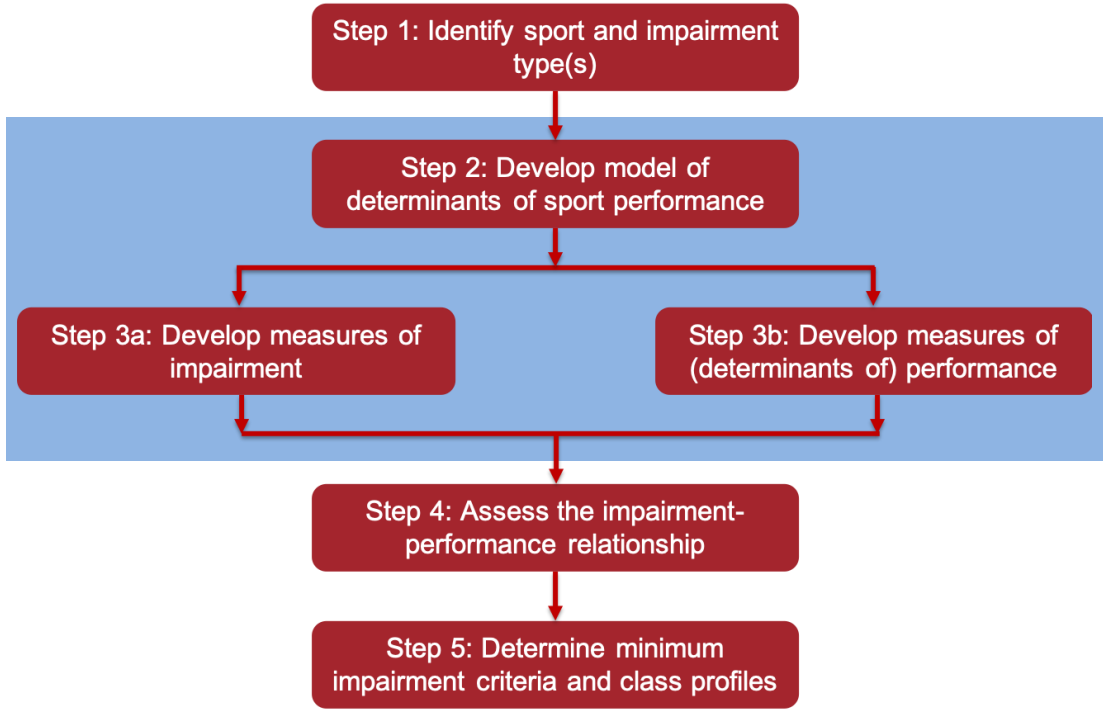
EXPERT CONSULTATION ALLOWS YOU TO…

FUTURE-PROOF YOUR RESEARCH

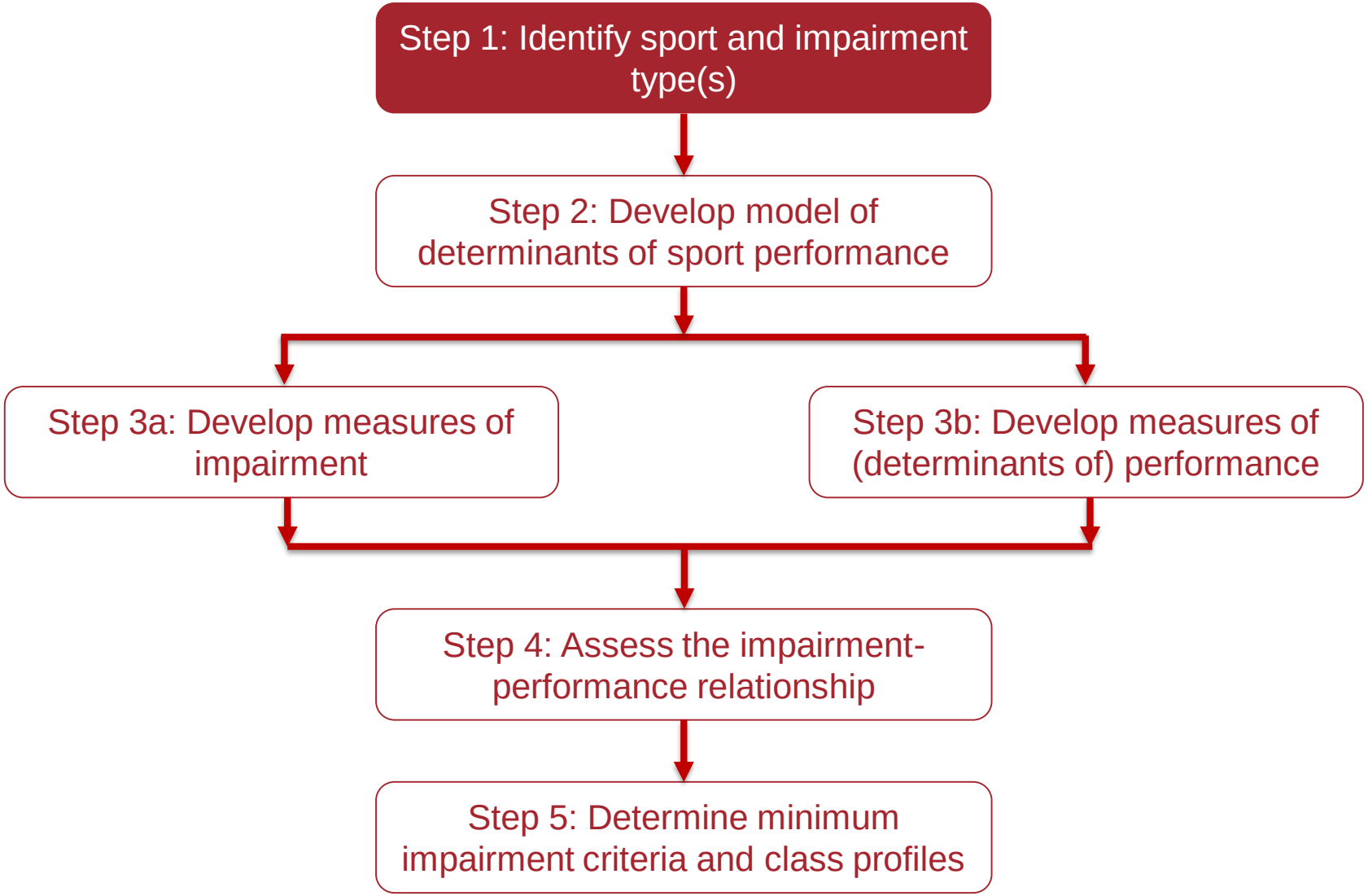
“You used the wrong measures of impairment”

“You used the wrong measures of performance”

Involve athletes and other key stakeholders from the start of the research process



HOW TO PERFORM CLASSIFICATION RESEARCH



IDENTIFY YOUR SPORT

FIVE-A-SIDE FOOTBALL

B1

-1

4

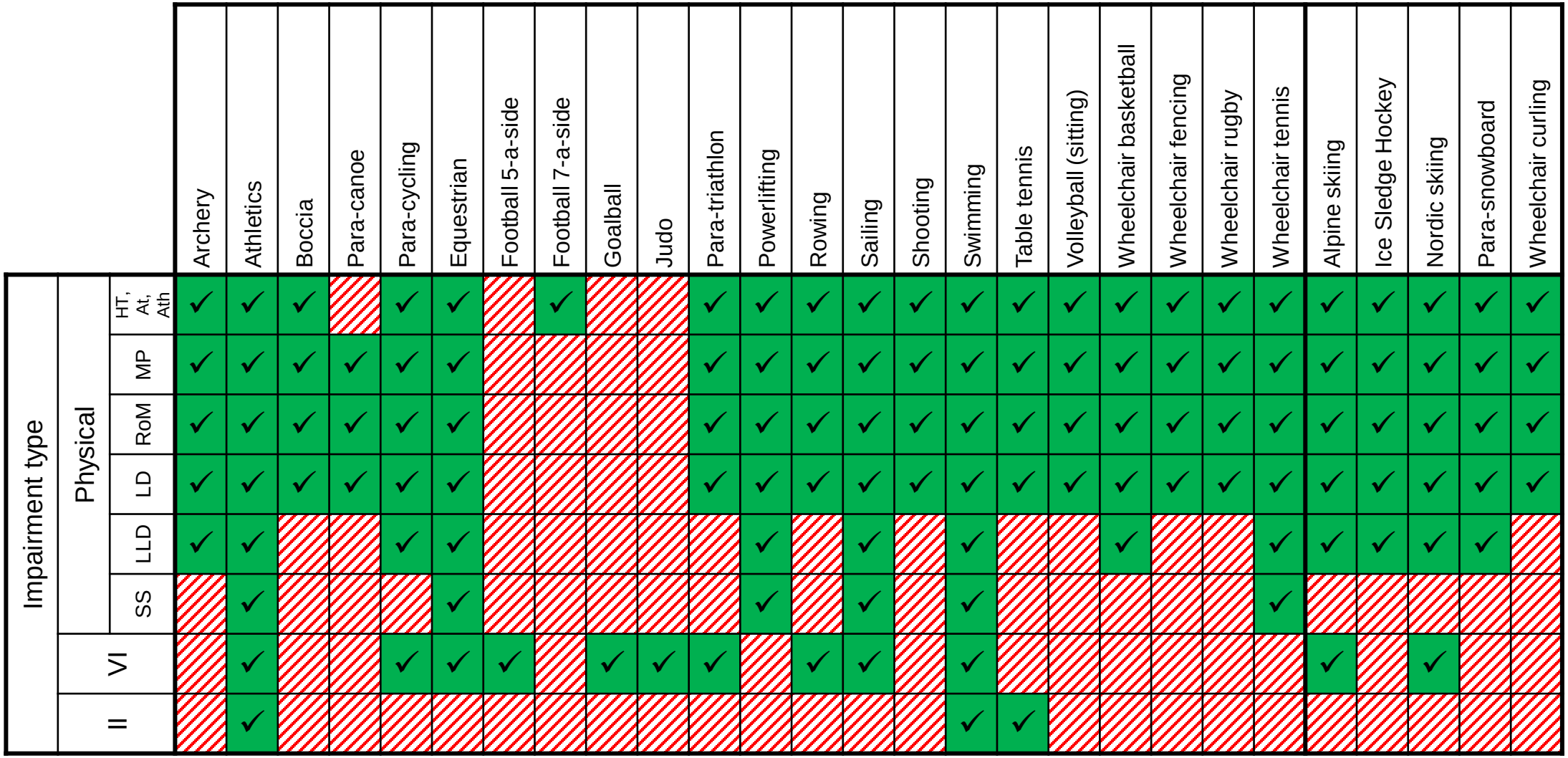
Visual acuity (logMAR units)

Partially sighted football

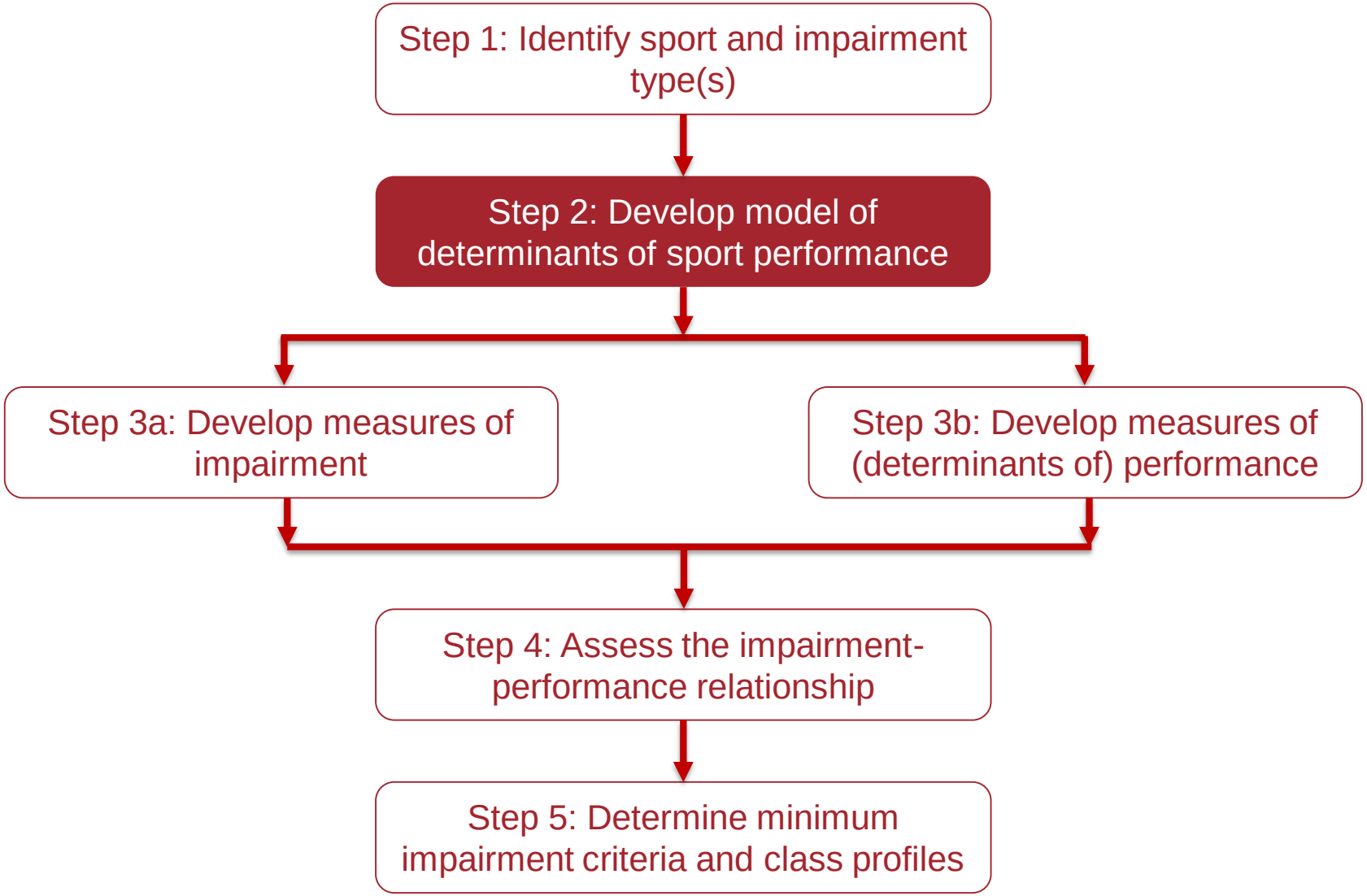
Blind football

Oliver Runswick Poster #132 Tomorrow 16:00
“Sport-specific classification for football 5-a-side"

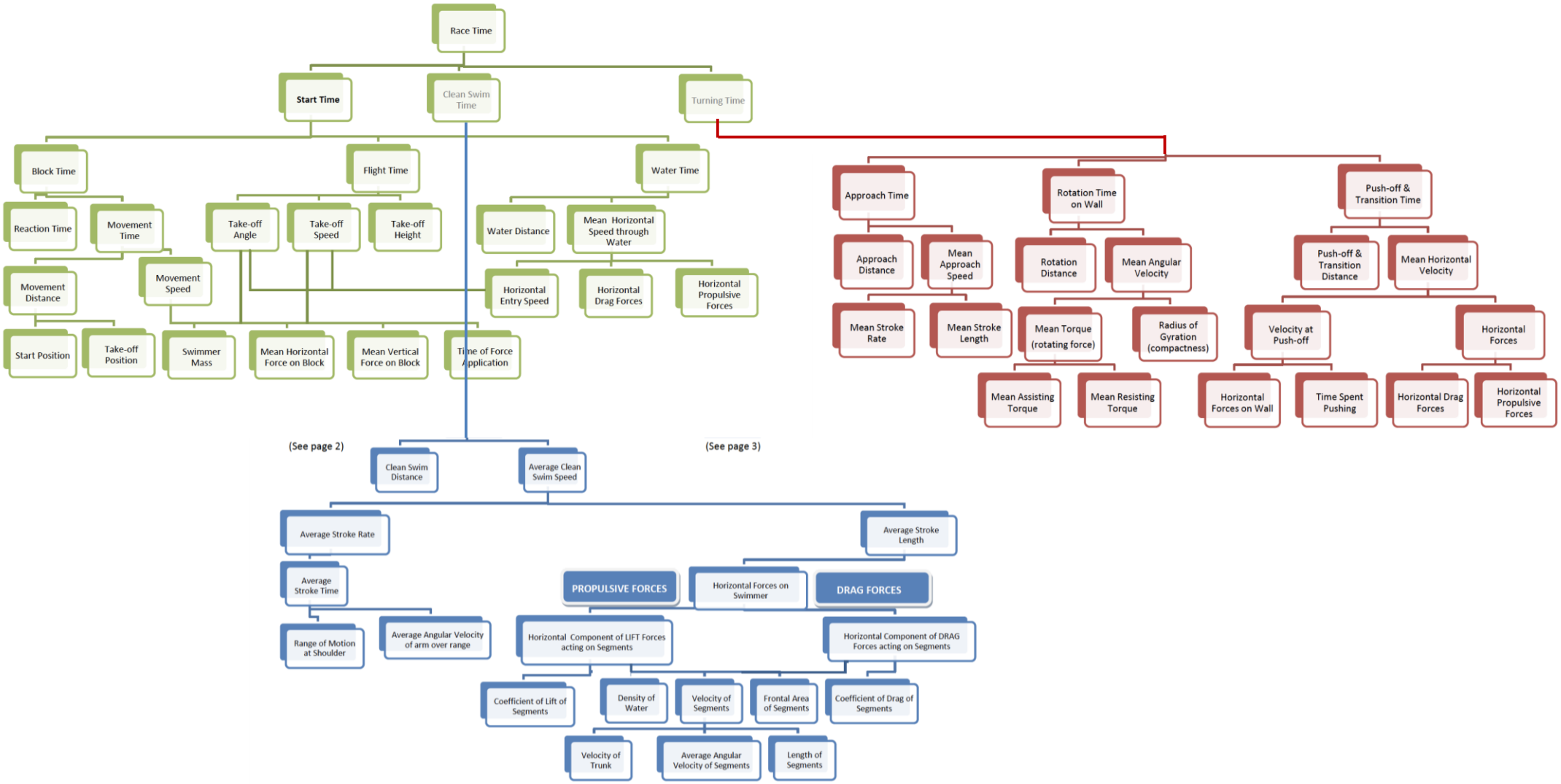
IDENTIFY YOUR IMPAIRMENT TYPE



HOW TO PERFORM CLASSIFICATION RESEARCH



DEVELOPING A MODEL OF SPORT PERFORMANCE
SWIMMING



VI SWIMMING

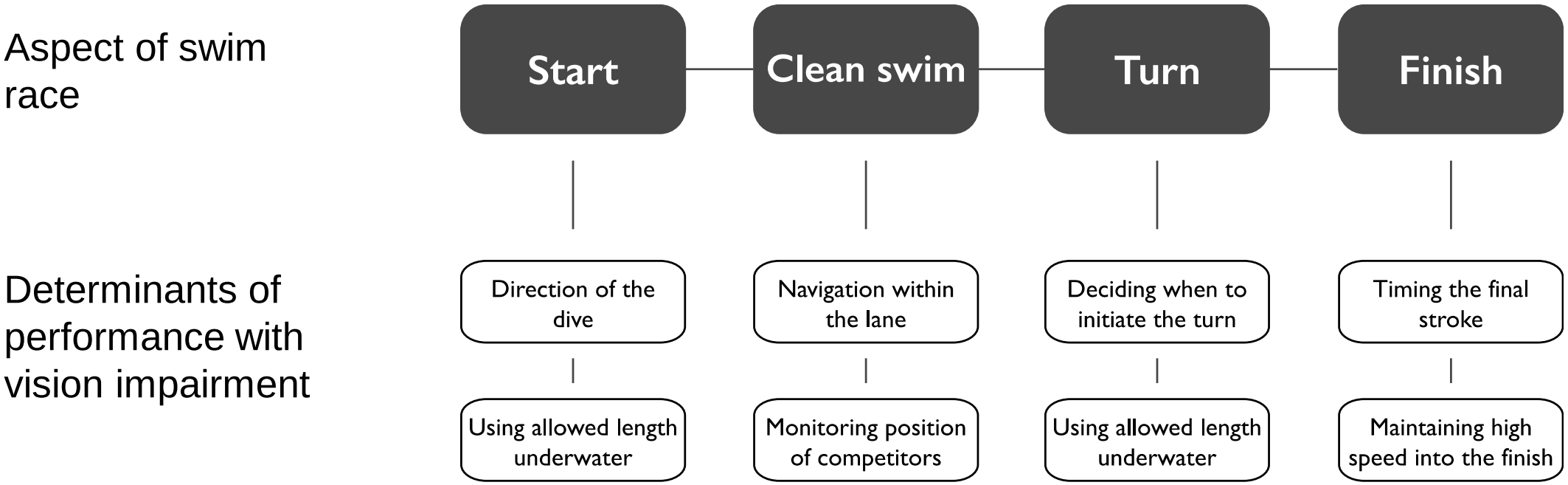
Survey 1: Please list any components of performance in swimming that might be:

Negatively impacted by VI	Unaffected by VI	Improve with VI

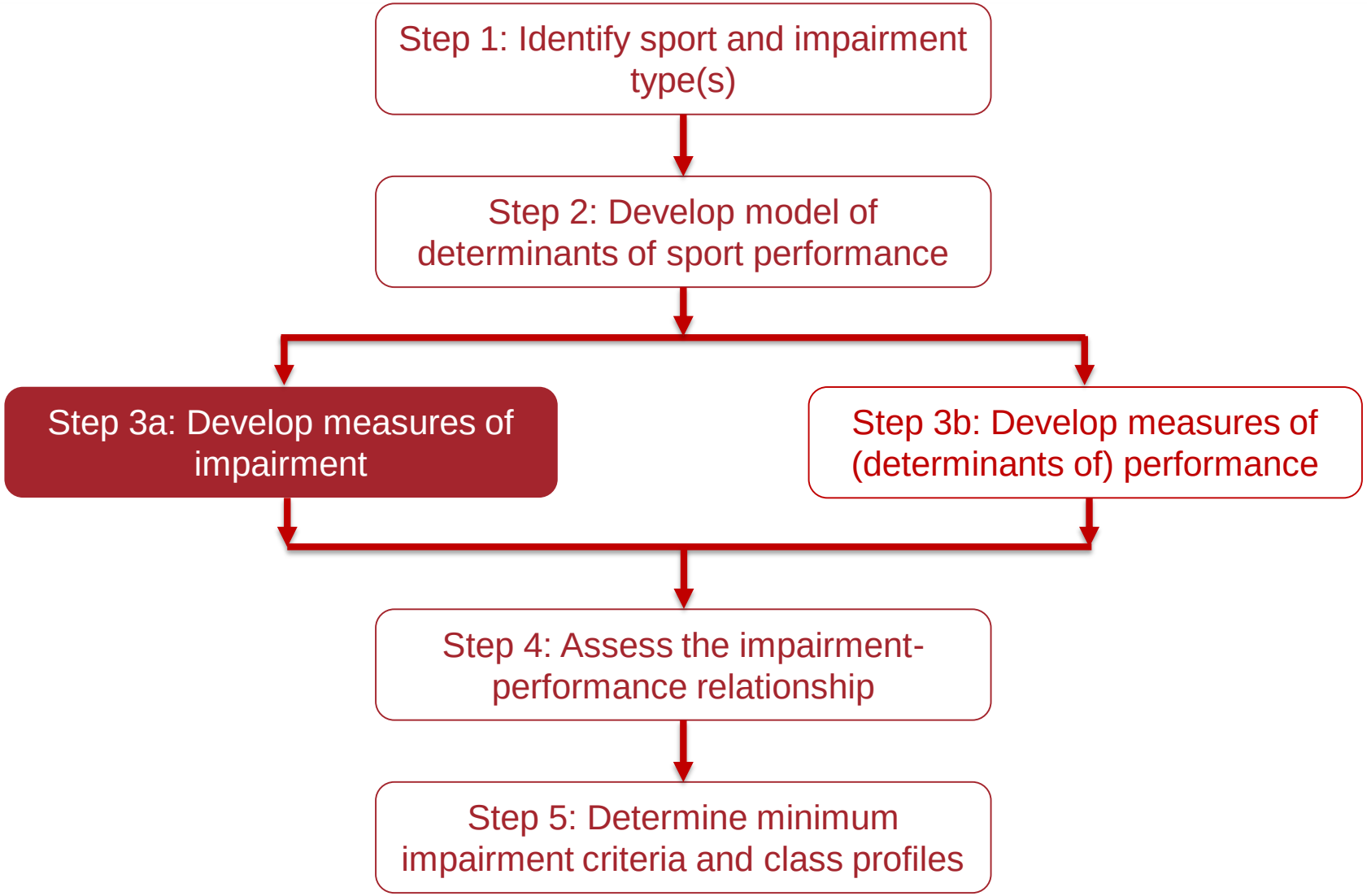
Survey 2: Which of the following aspects of performance are negatively impacted by vision impairment?

Aspect of performance	Yes	No
Reaction time to start signal		✔
Direction of the dive	✔	
Deciding when to initiate a turn	✔	
Navigation within the lane	✔	

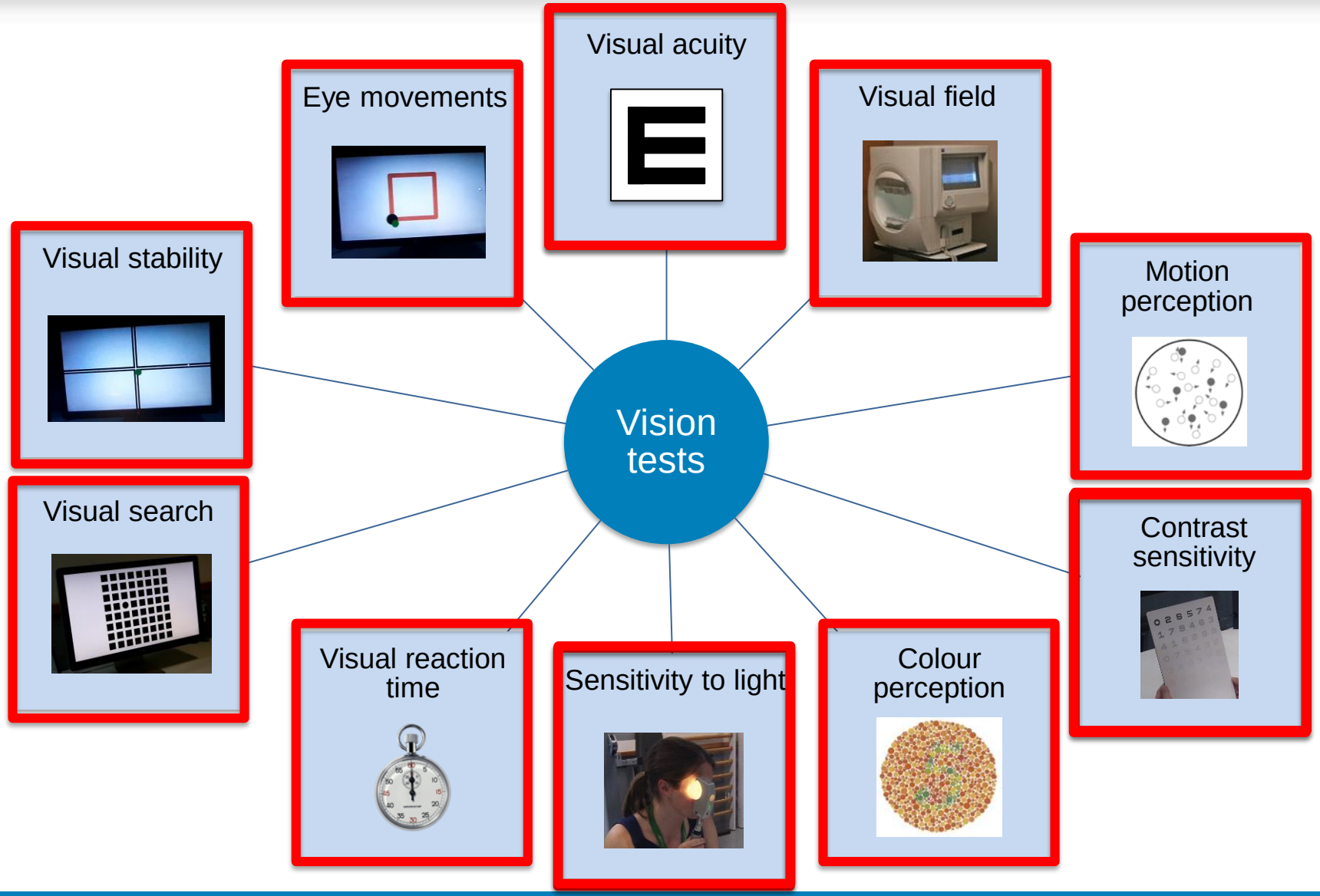
VI SWIMMING


Aspect of swim race
Start
Clean swim
Turn
Finish
Determinants of performance with vision impairment
Direction of the dive
Navigation within the lane
Deciding when to initiate the turn
Timing the final stroke
Using allowed length underwater
Monitoring position of competitors
Using allowed length underwater
Maintaining high speed into the finish

HOW TO PERFORM CLASSIFICATION RESEARCH



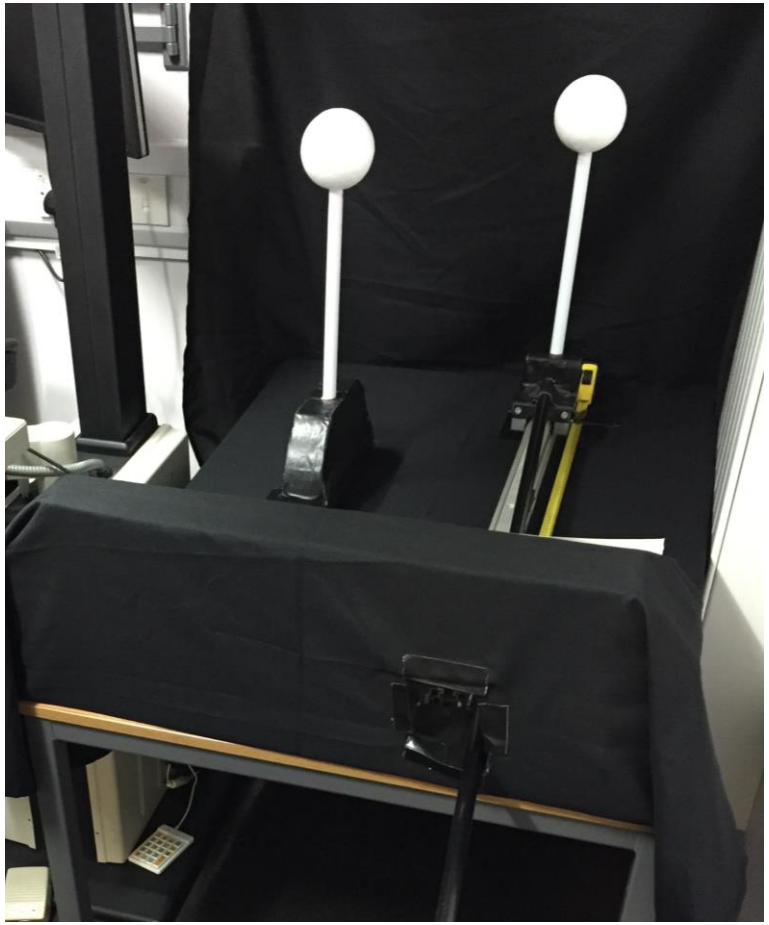
VISION TEST BATTERY



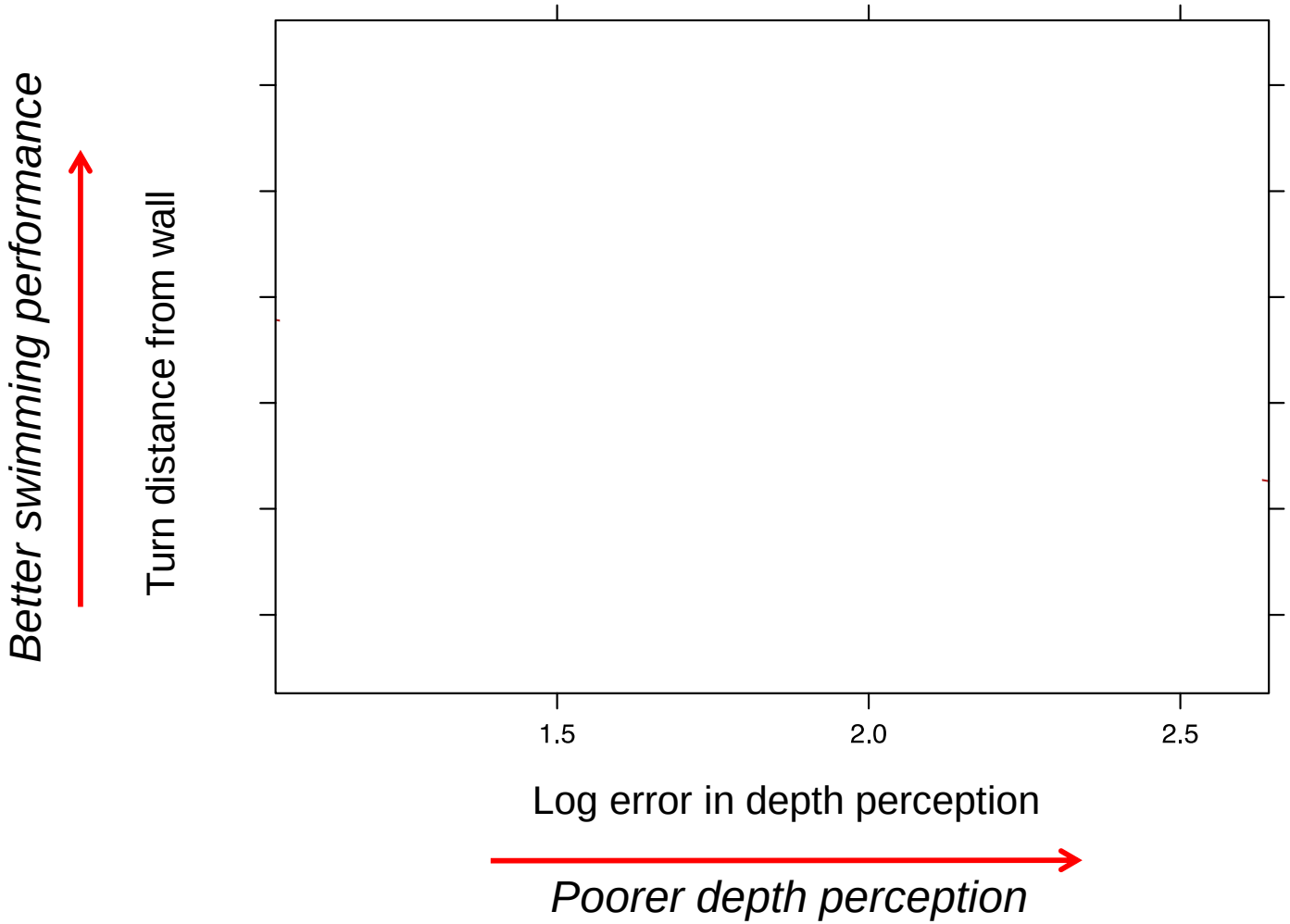
EXPERT CONSULTATION

Measure of visual function	% panel who think that measure is relevant for classification
Depth perception	**92%**
Light sensitivity	**71%**
Contrast sensitivity	**67%**
Motion perception	**67%**
Dynamic visual acuity	58%
Ocular stability	50%
Ocular coordination	44%
Colour vision	42%

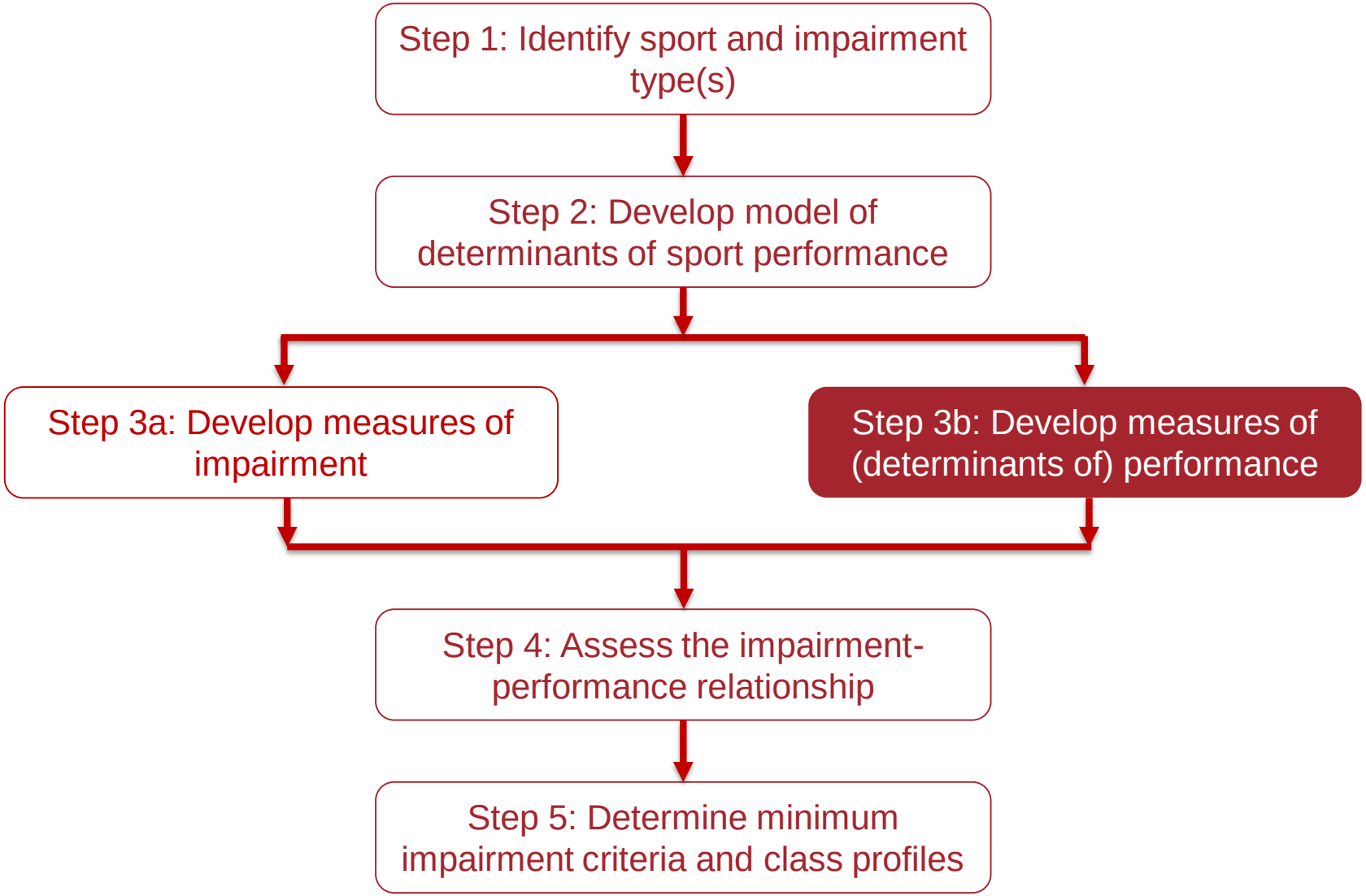
TESTING DEPTH PERCEPTION



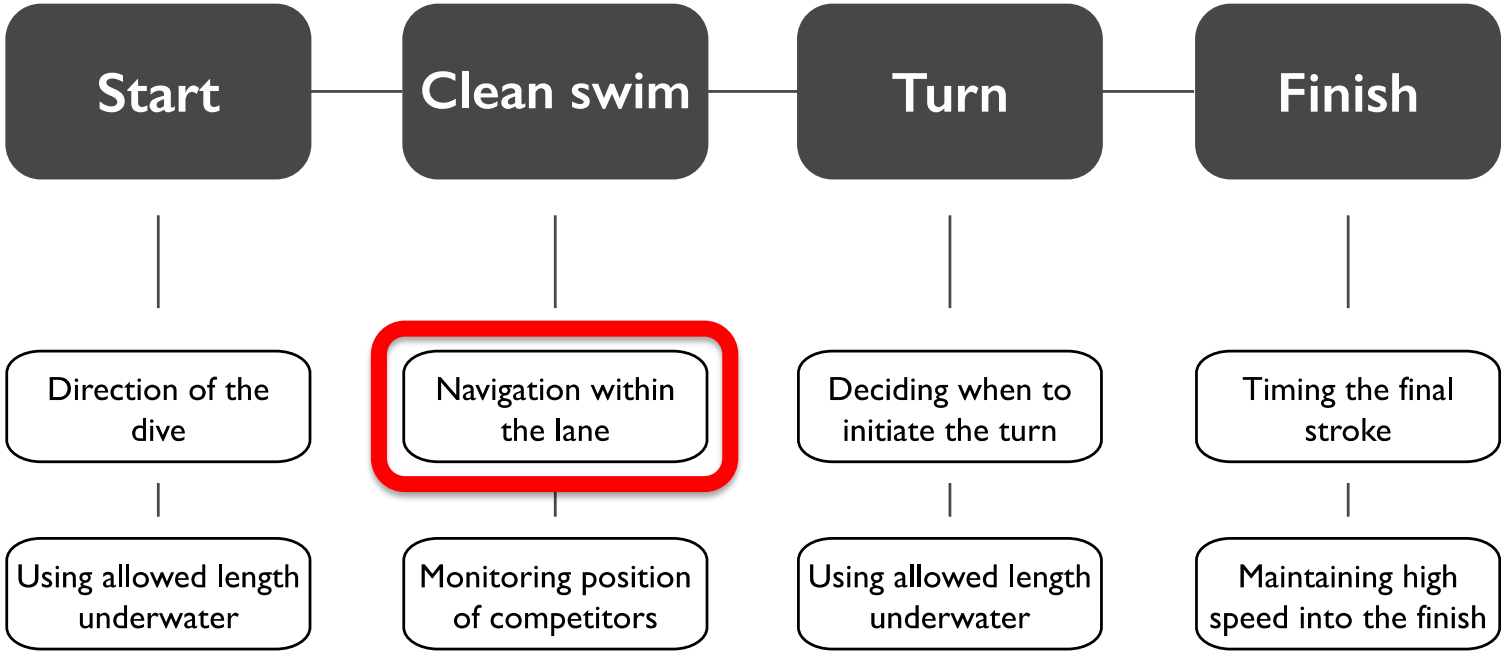
IMPAIRMENT-PERFORMANCE RELATIONSHIP



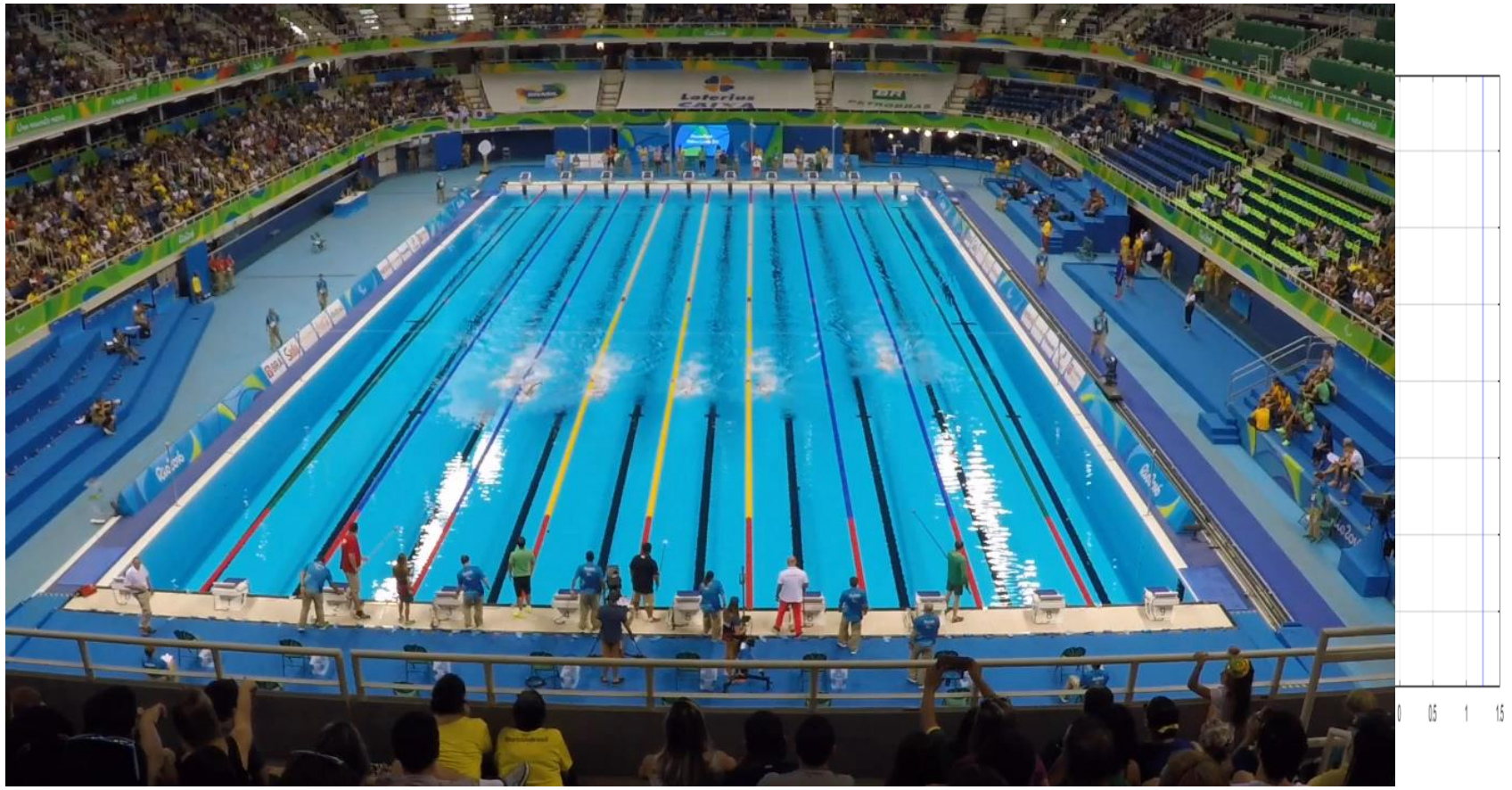
HOW TO PERFORM CLASSIFICATION RESEARCH



VI SWIMMING


Start
Clean swim
Turn
Finish
Direction of the dive
Navigation within the lane
Deciding when to initiate the turn
Timing the final stroke
Using allowed length underwater
Monitoring position of competitors
Using allowed length underwater
Maintaining high speed into the finish

POSITION IN LANE



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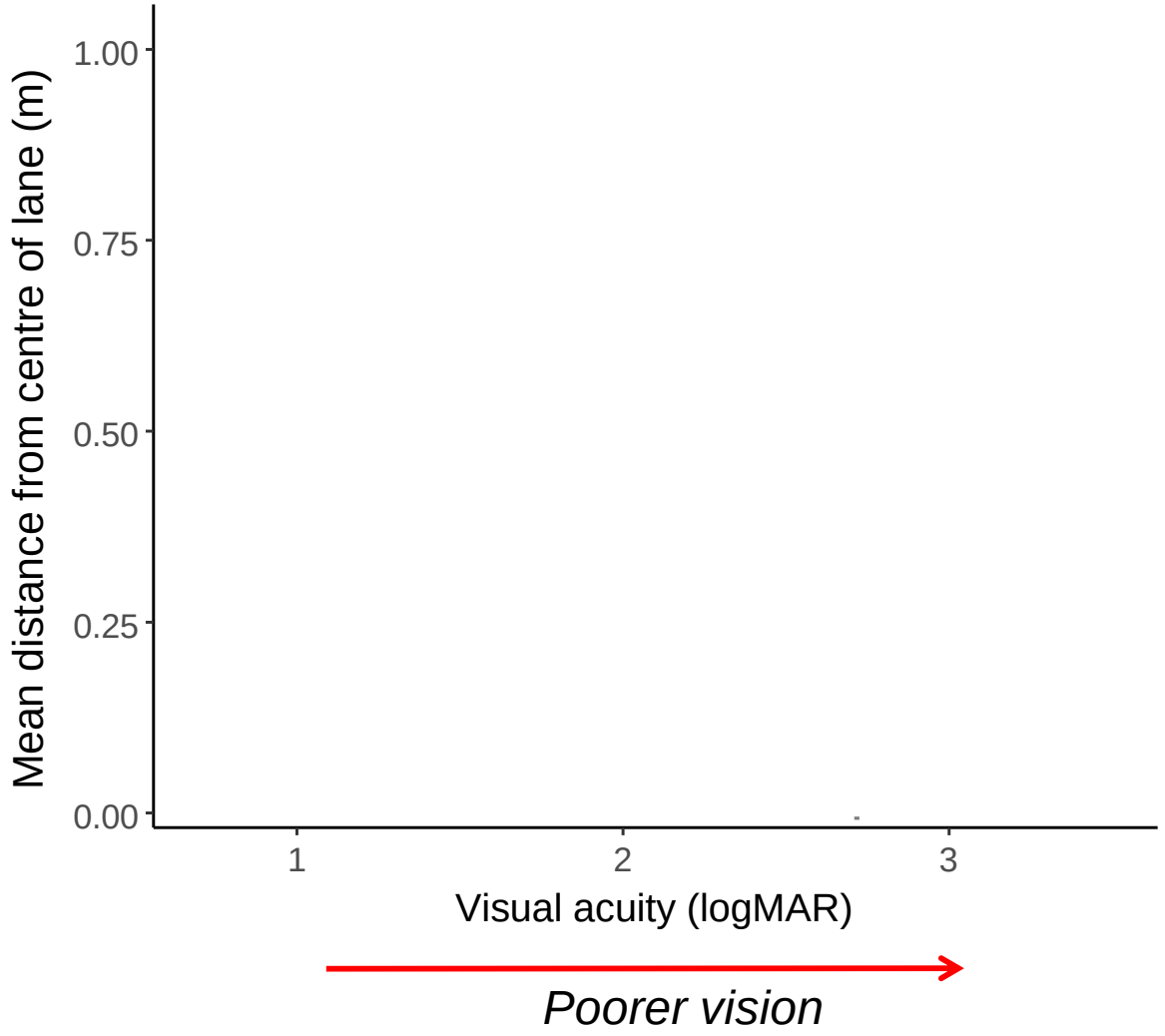
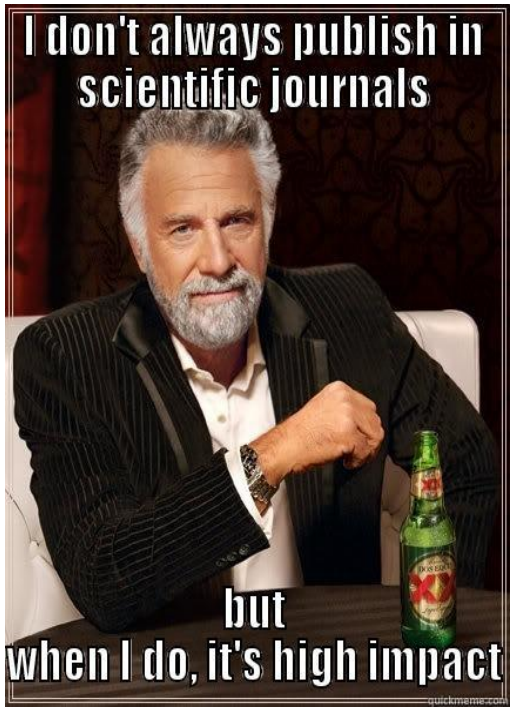


PUBLISHING YOUR EXPERT CONSULTATION

Path to publication



Which journal?

Leap into the unknown

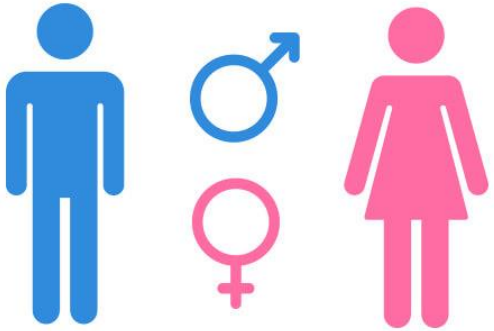
It may not be your career-defining paper, but it could lay the groundwork for your career-defining change to society

SETTING UP AN EXPERT PANEL

Define what it is to be an ‘expert’ and try to balance:

Location

Sport role



Gender

Congenital and acquired impairments

Don’t identify the panel alone – the International Federation is your best friend!

ACKNOWLEDGEMENTS

Classification Research Partner

International Paralympic Committee

This project is supported by a Classification Research Grant awarded by the International Paralympic Committee.

International Blind Sports Federation

This project is supported by a Research Grant awarded by the International Blind Sports Federation.

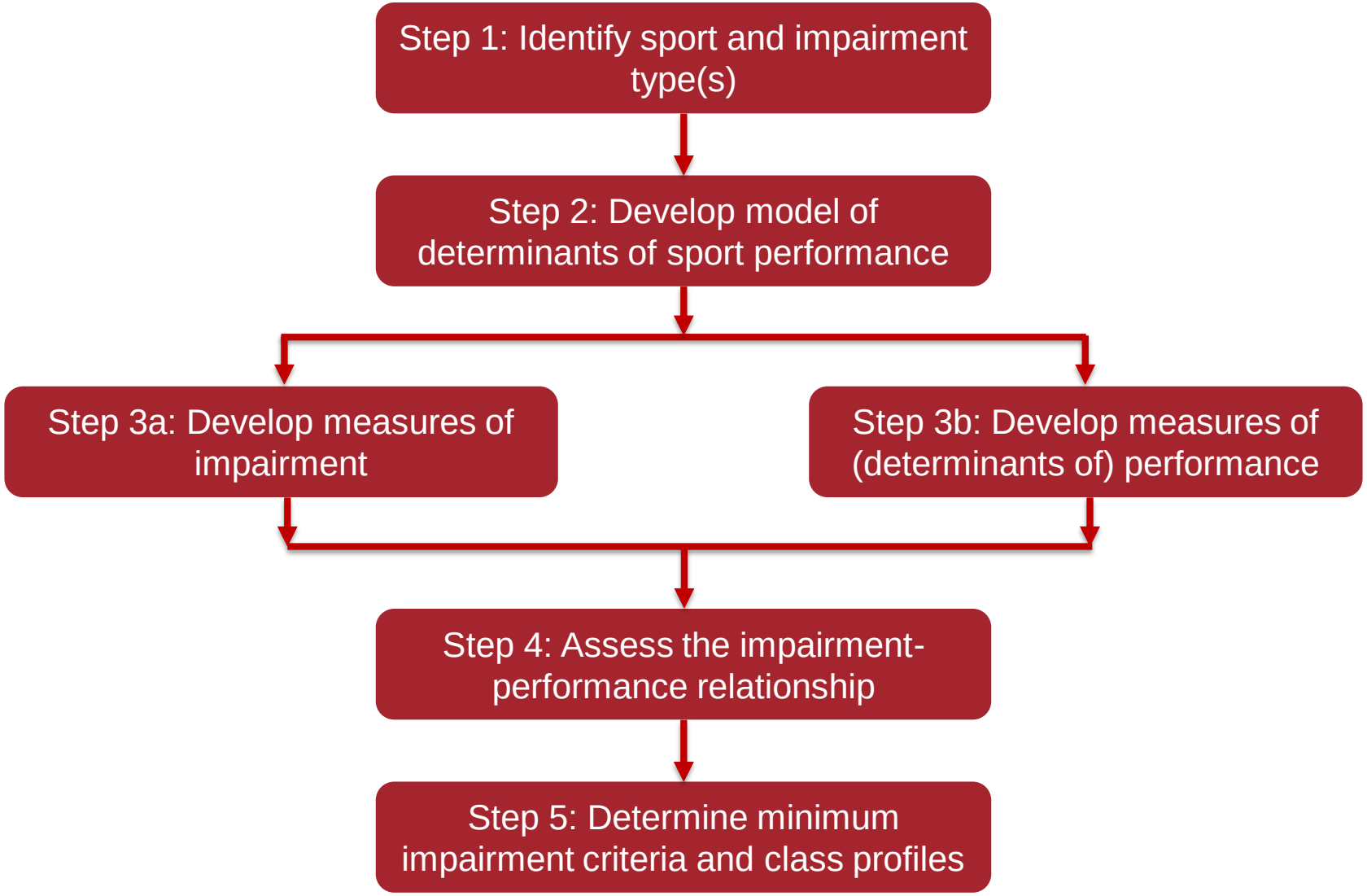
supported by

Agitos Foundation

Aspects of this project were supported by Agitos Research Grants awarded by the Agitos Foundation.

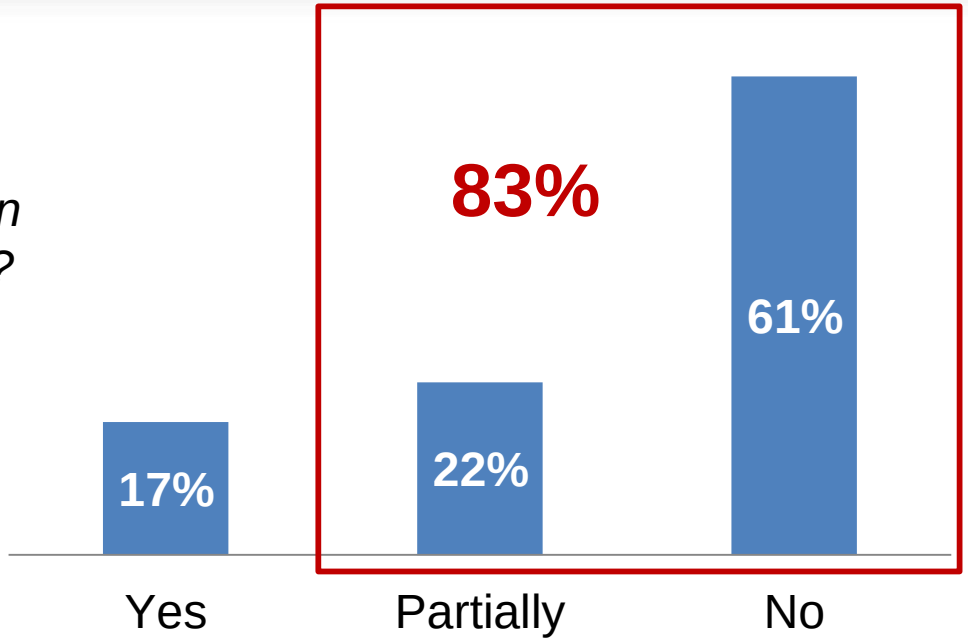
Rianne Ravensbergen

HOW TO PERFORM CLASSIFICATION RESEARCH



DELPHI REVIEW

Judo: *Does the current classification system fulfil its aim?*

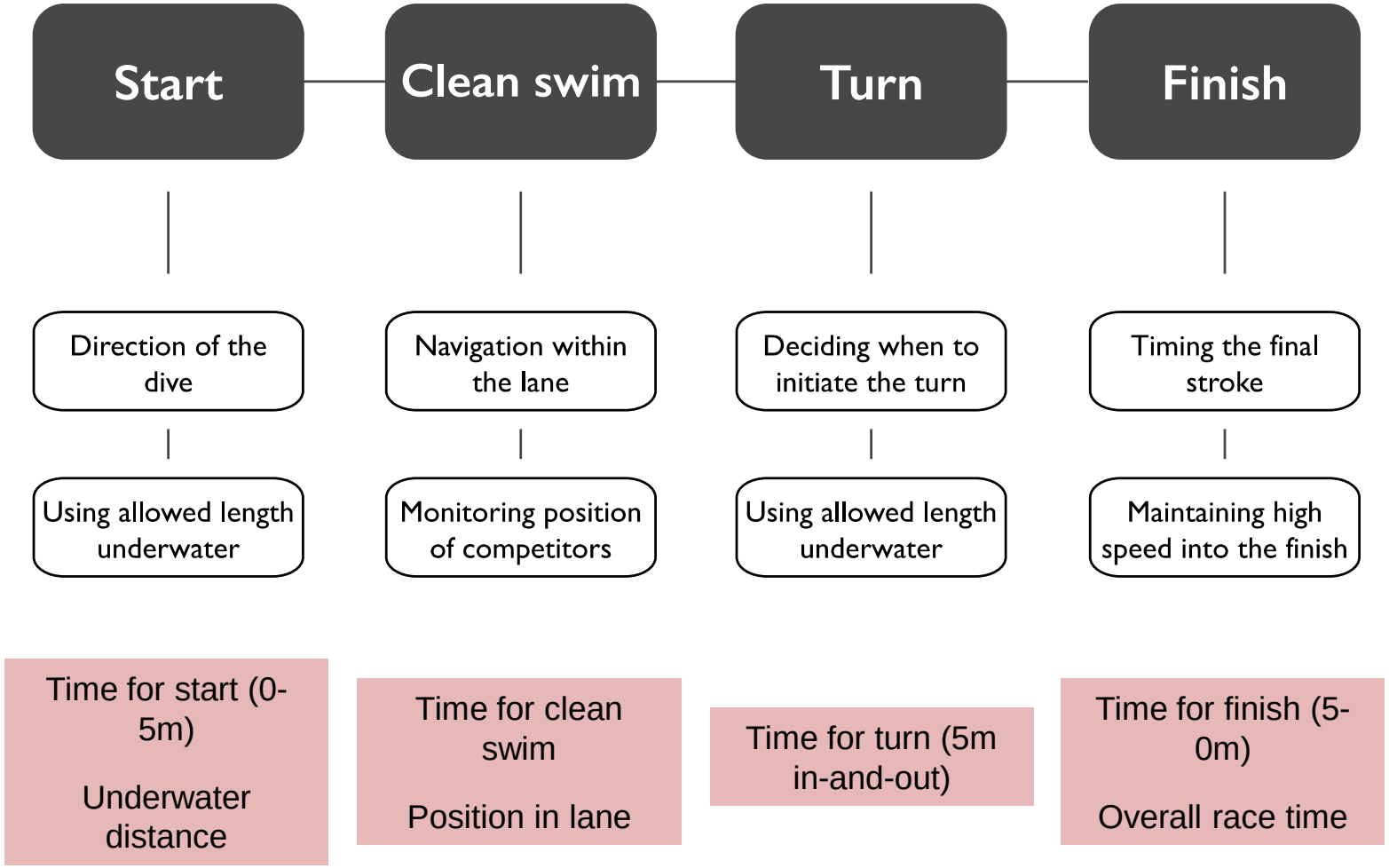


Minimum 15-20 experts

Advantages	Disadvantages
• Everyone's view counts equally	

- Model as basis of symposium
  - Position stand vs book chapter
  - Model and simplified model – walk through
  - Who will cover what
- Expert consultation
  - Why do it?
    - IPC's athlete-centred view
    - Helps to future-proof your research (wide appetite for change until change happens)
    - Uncover hidden gems
  - Ways to consult experts
- Model Step 1 – Identify sport and impairment type(s)
  - Sport – 5-a-side football
  - Impairment type(s) - tennis
- Model Step 2 – Develop theoretical model of the determinants of sport performance
  - Swimming model and our approach
- Model Step 3 – Develop measures of impairment and performance
  - Impairment
    - Choosing from measures of impairment
    - Depth perception
  - Performance
    - Swimming position in lane
    - Grip performance in judo
- Delphi tips
  - Setting up an expert panel
  - Publishing your expert consultation

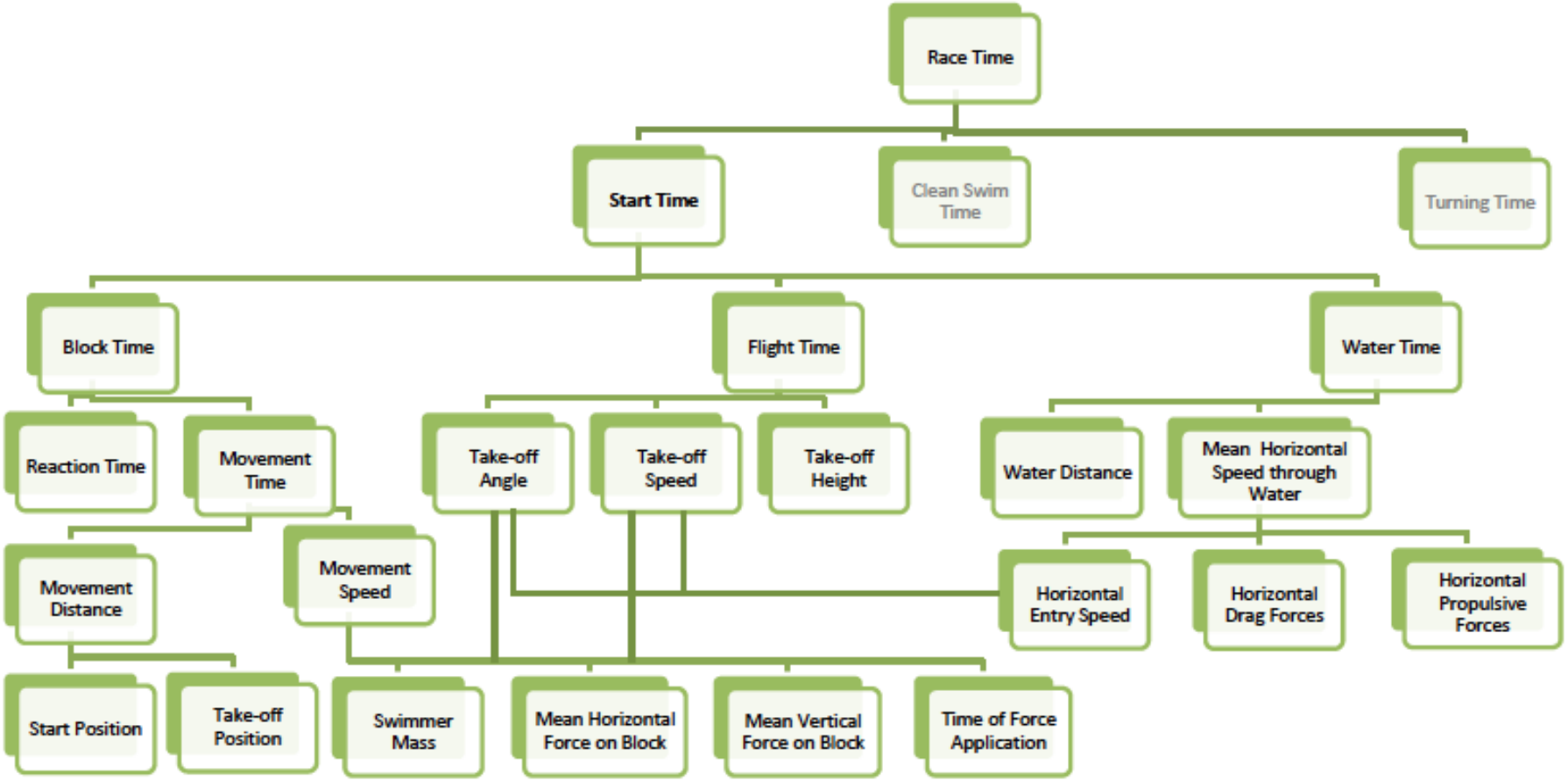
VI SWIMMING


Start
Clean swim
Turn
Finish
Direction of the dive
Navigation within the lane
Deciding when to initiate the turn
Timing the final stroke
Using allowed length underwater
Monitoring position of competitors
Using allowed length underwater
Maintaining high speed into the finish
Time for start (0-5m)
Underwater distance
Time for clean swim
Position in lane
Time for turn (5m in-and-out)
Time for finish (5-0m)
Overall race time

EXPERT CONSULTATION ALLOW YOU TO…

UNCOVER HIDDEN GEMS TO UNDERSTAND YOUR SPORT

DEVELOPING A MODEL OF SPORT PERFORMANCE
SWIMMING



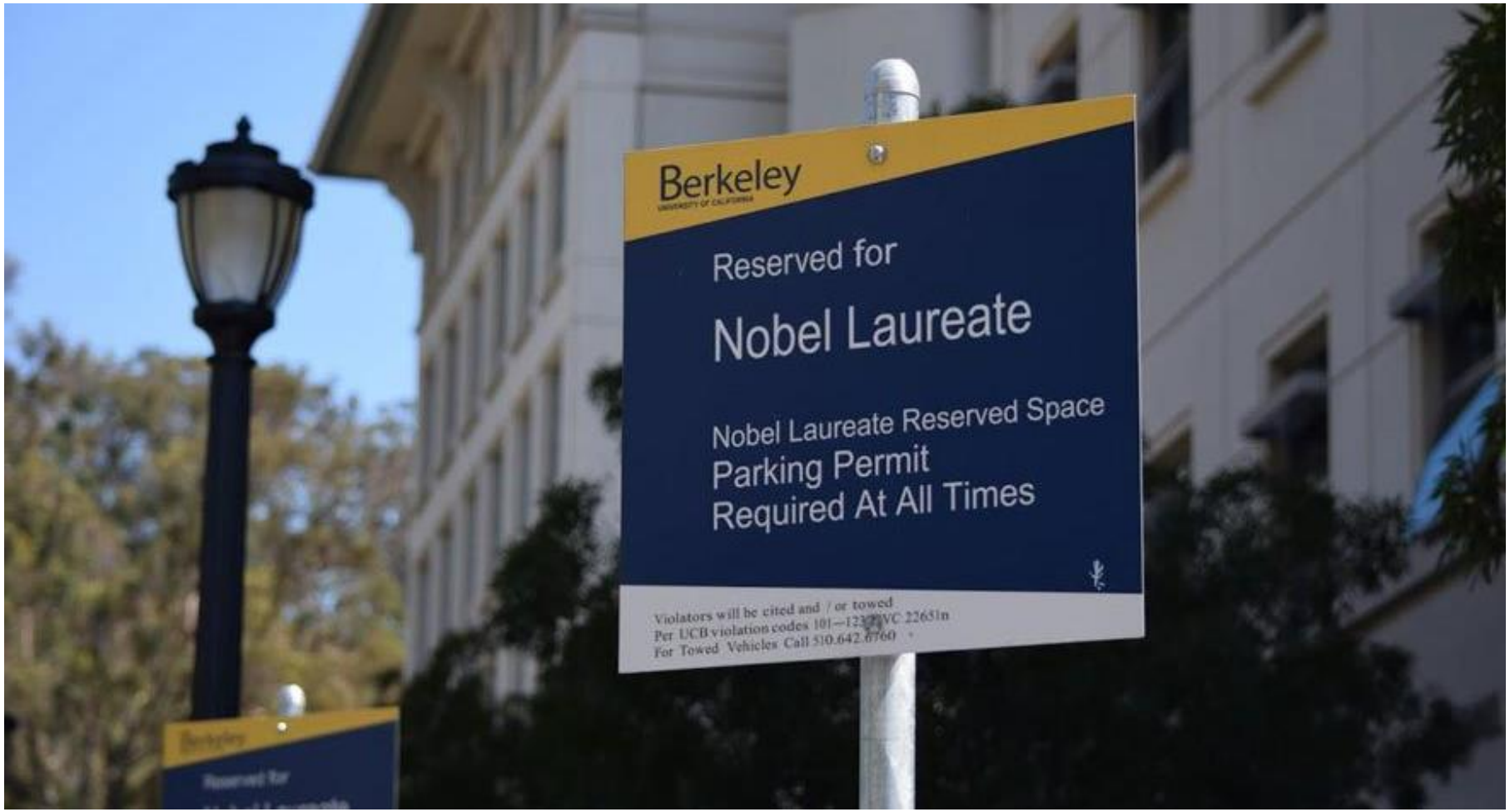
Should we ask our experts what they *think* the classification system should be?

No a-priori ideas

It has almost always been very close (so far)

EXPERT CONSULTATION ALLOW YOU TO…

PARK YOUR SCIENTIFIC EXPECTATIONS AT THE DOOR



THERE IS A WIDE APPETITE FOR CHANGE (UNTIL CHANGE COMES…)