

Of chicken-rice, chili-crab & 'chye-tow-kway': a contextual examination of the IOC consensus statement on youth athlete development'

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International Olympic Committee consensus statement on youth athletic development

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A caucus meeting over 3 days in Lausanne in 2014. Among expertise- paediatric exercise physiology, psychology growth, maturation and development, strength & conditioning, motor control, nutritionists, medical doctors, coaching, law & medicine. There was also a former Olympic athlete.

Acknowledgement

Detecting and developing youth athlete potential:
different strokes for different folks are warranted

Haresh T Suppiah¹, Chee Yong Low², Michael Chia¹

British Journal of
Sports Medicine

- Dr Low Chee Yong
- Haresh Suppiah



Thank you



Start with the end in mind...

Talent > Timing > Tenacity

Mud

Medal



Uncertain
High risk

Less uncertain
Moderate risk

More certain
Acceptable risk

Childhood

Adolescence

Young to mid adulthood

1

2

3

How do we groom champions at the highest levels?

2016 Olympic Schooling moment
His time is a National, Asian and Olympic record



2016 Rio Paralympic Games
Yip Pin Xiu
(50m & 100m backstroke world records)



What will it take to achieve sport success?



- Depends on time from detection to achievement
- Is there sufficient time to make up for skill & mental deficiencies
- Readiness, hunger & hard work
- Alignment of moon & stars- element of luck

Early investment for talent detection & development



- Long timeframe from detection to fruition is problematic (Suppiah, Low & Chia, 2015)
- Changes during puberty make the prediction of adult performance difficult (Pearson, Naughton & Torode, 2006)
- Psychosocial aspects for successful adult performance are generally ignored in most TID tests (Pankhurst & Collins, 2013)
- Performance development of elite athlete does not follow a predictable linear pattern (Gulbin et al., 2013)
- Sport-specific TID models with reliable & sensitive measures of performance are necessary (Vaeyens et al., 2008)

The quest from playground to podium...is it

**MISSION:
MISSION:
POSSIBLE
POSSIBLE**

Or



Elite Performer



Competitive Performer

Easy to jump on the bandwagon- follow what others are doing

F | **ALSE**

E | **VIDENCE**

A | **PPEARING**

R | **EAL**

Also need to consider...

ABSENCE OF
EVIDENCE
IS NOT
EVIDENCE
OF ABSENCE



Past & present success does not
guarantee
future success

Medal tally @ Rio Olympics 2016



Rank	Country	Medal count	Rank	Country	Medal count
1	USA	121	11	Netherlands	19
2	Great Britain	67	12	Hungary	15
3	China	70	13	Brazil	19
4	Russia	56	14	Spain	17
5	Germany	42	15	Kenya	13
6	Japan	41	16	Jamaica	11
7	France	42	17	Croatia	10
8	South Korea	21	18	Cuba	11
9	Italy	28	19	New Zealand	18
10	Australia	29	20	Canada	22

Ranking not based on medal tally alone but on Gold, Silver or Bronze won

Talking points

Detecting and developing youth athlete potential:
Different strokes for different folks are warranted
Haresh T Suppiah¹, Chee Yong Low², Michael Chia¹

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Conceptual approach to TD²

Detection plus development



Which child

- Tools to identify

WHO?

WHAT?

Lifestyle

- Now till then

Location

- Normal vs sport school

WHERE?

WHEN?

Timing

- General vs specific

Intention

- Mud to Medal

WHY?

Know-how

- Type of experience
- Significant others

5-20 yrs

HOW?

A budget allocation exercise- a balance between efficiency & effectiveness

Macro-view of TD²

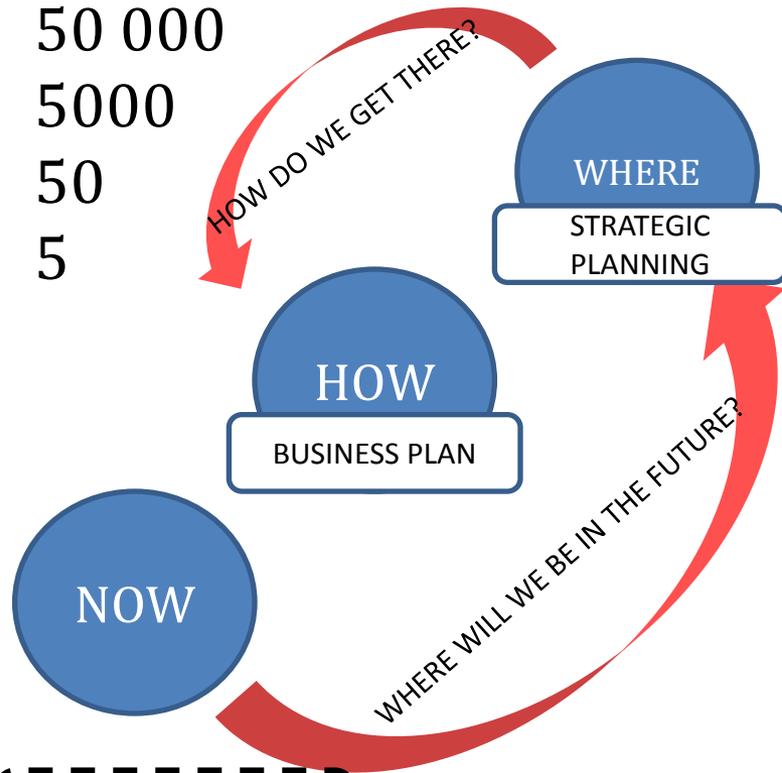
500 000 Singaporean youth

50 000

5000

50

5



Selected child
12-15 yrs old



Allocation of limited resources- training, expertise, facilities, other forms of support

Invest now for future- need to accept some inefficiencies & risk

Predictors of sporting success remain elusive



- CGS-type sport (some track & field events)
- Individual sport with relative closed skills (shooting, archery, baseball batting)
- Individual sport with relative open skills (gymnastics)
- Team sport (soccer, hockey, rugby, volleyball)

- Interactions between nature & nurture
- Moving parts & unquantified weightage to measures of success
- Luck & quality of competition
- Each jig saw piece varies between individuals and groups
- Sometimes the variability within groups > across groups



Dangers of oversimplifying...

Similar due to inheritance

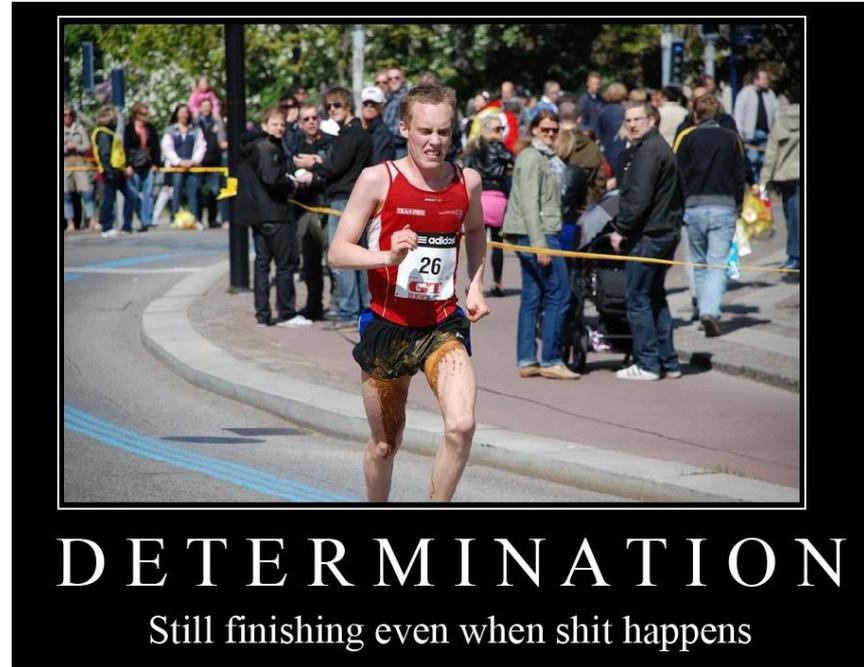


*Similar due to...
Other factors*



- If every competitor was genetically similar, then it comes down to environment & practice
- Or if environment & practice were identical, then it comes down to genetic disposition
- But in real life, the two scenarios do not exist in the pure sense

DNA or Determination- explains sporting success?



DETERMINATION

Still finishing even when shit happens

It is 100% Nature & 100% Nurture

Giftedness plus divine dissatisfaction to do better
can be a potent mix for success

Balanced perspective

Risk perspective of TD²

- Identify wrong talent
- Did not identify right talent
- Fail to provide support
- Excluded talent- no support



Risk alleviation strategies of TD²

- Align policy, process & practice
- Increased porosity – previously excluded & also those moving out
- Facilitate late detection & transfer across sport
- Increased definition of success



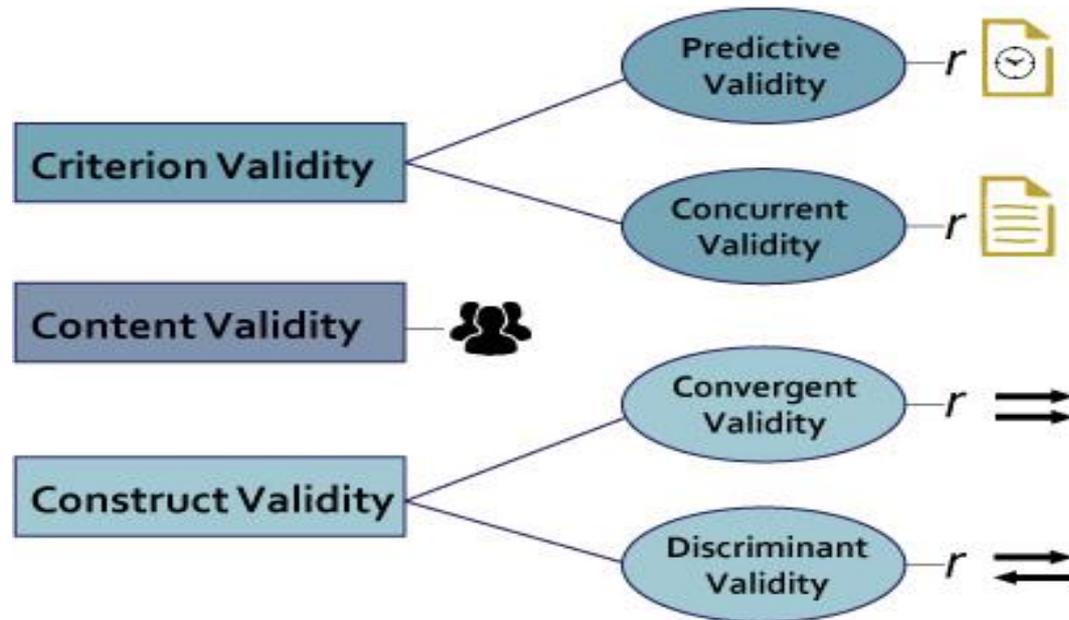
Talent > Timing > Tenacity



- Nature plus nurture
- Time from detection to achievement (10-15 yrs or more)
- Is there sufficient time to make up for skill & mental deficiencies
- Ecology & environment of a champion (stakeholders)
- Readiness & hunger concept (divine dissatisfaction)
- Alignment of moon & stars (element of luck)

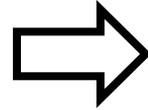
Talent identification and talent development of sport in youth – is it fallacious, fallible or fantasy?

- I. Establish greater predictive validity of performance tests that are used to monitor an athlete's progress during development
- II. Use these tests as sources of information rather than for selection or de-selection
- III. Interpret the performance results with discernment and with caution



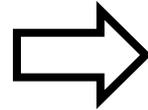
Early specialisation, the relative age effect and beyond

I. Allow young people to sample as many physical activities and sports in the context of play



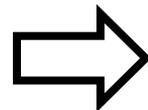
Avoid too early a sport specialization- health & well-being of young athlete is paramount

II. Allow and encourage wholesome sport experiences in competition settings without too much structured training till after adolescence

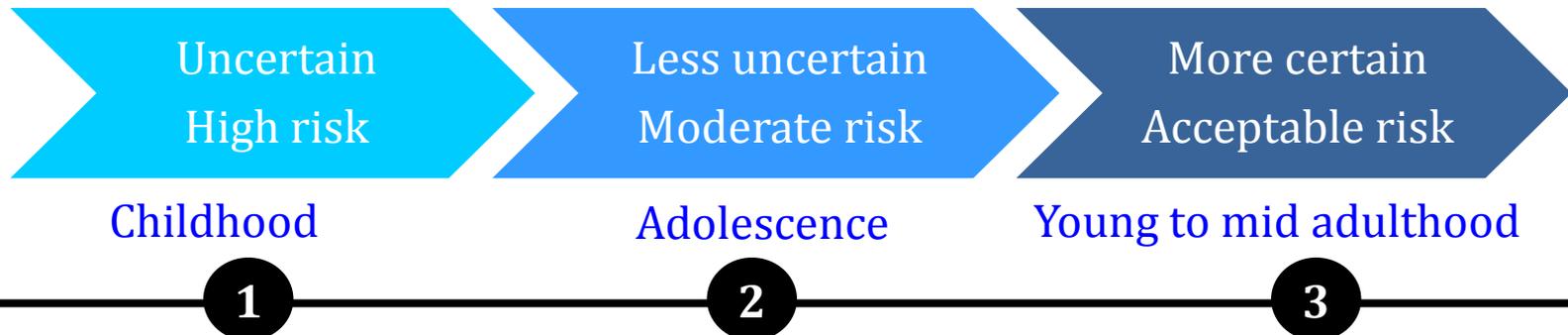


Reduces overuse injury, prevents burnt-out & drop-out

III. Imbue variety and fun elements within a single sport or across different sports

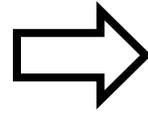


Promotes lifelong engagement in sport- even different kinds of sport



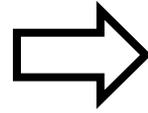
Deliberate practice, deliberate play or early engagement – is there room for a compromise?

I. Sport expertise does not happen in the absence of practice and play, in a deliberate form or otherwise



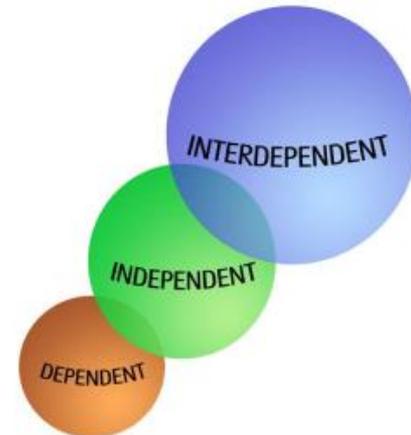
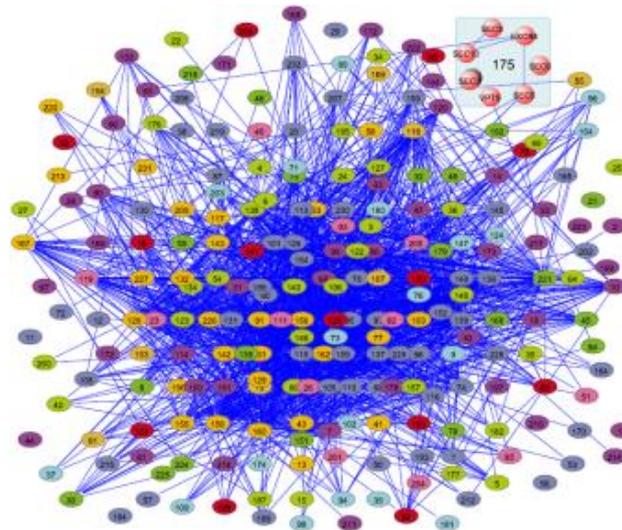
Time is required in sport engagement in various settings

II. A diverse exposure to sport & the developmental route taken by a successful elite athlete depends on the sport, the culture and context of the country



JSA programme is an example

III. Caution is warranted in adopting a 'one-model-fits-all' approach to developing sport expertise in youth and beyond



The need for flexibility, porosity of talent transfer and a reframing of sport success

- I. Allow, expect and encourage transfers of talent across sport (**SSP is an example**)
- II. Anchor sport as youth development - broaden the success definition in sport
- III. Allow youth to find joy and meaning in the pursuit of excellence in sport throughout the athlete lifespan



Success & joy can mean



Sports champion

Not all eggs in a single
basket in terms of
global glory

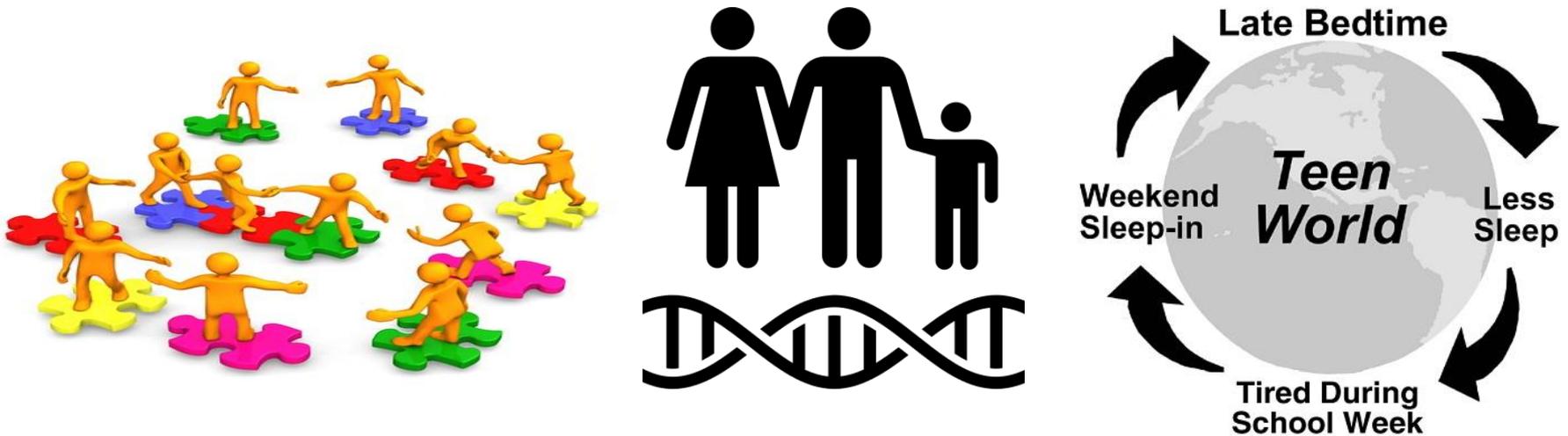


Champion for sports

Sport as youth
development

Other considerations in talent identification and development

- I. The interplay of the influences of stakeholders, culture and context of sport in the country (place of sport, conscription)
- II. Genetically built for success- promising but not a one-answer-fits-all solution
- III. Sleep (adolescent sleep characteristics)



Uniquely Singaporean challenges



Sport versus academics at all levels



National service: country before self

Absence of vibrancy & profile of



Key message

Balanced perspective

Risk perspective of TD²

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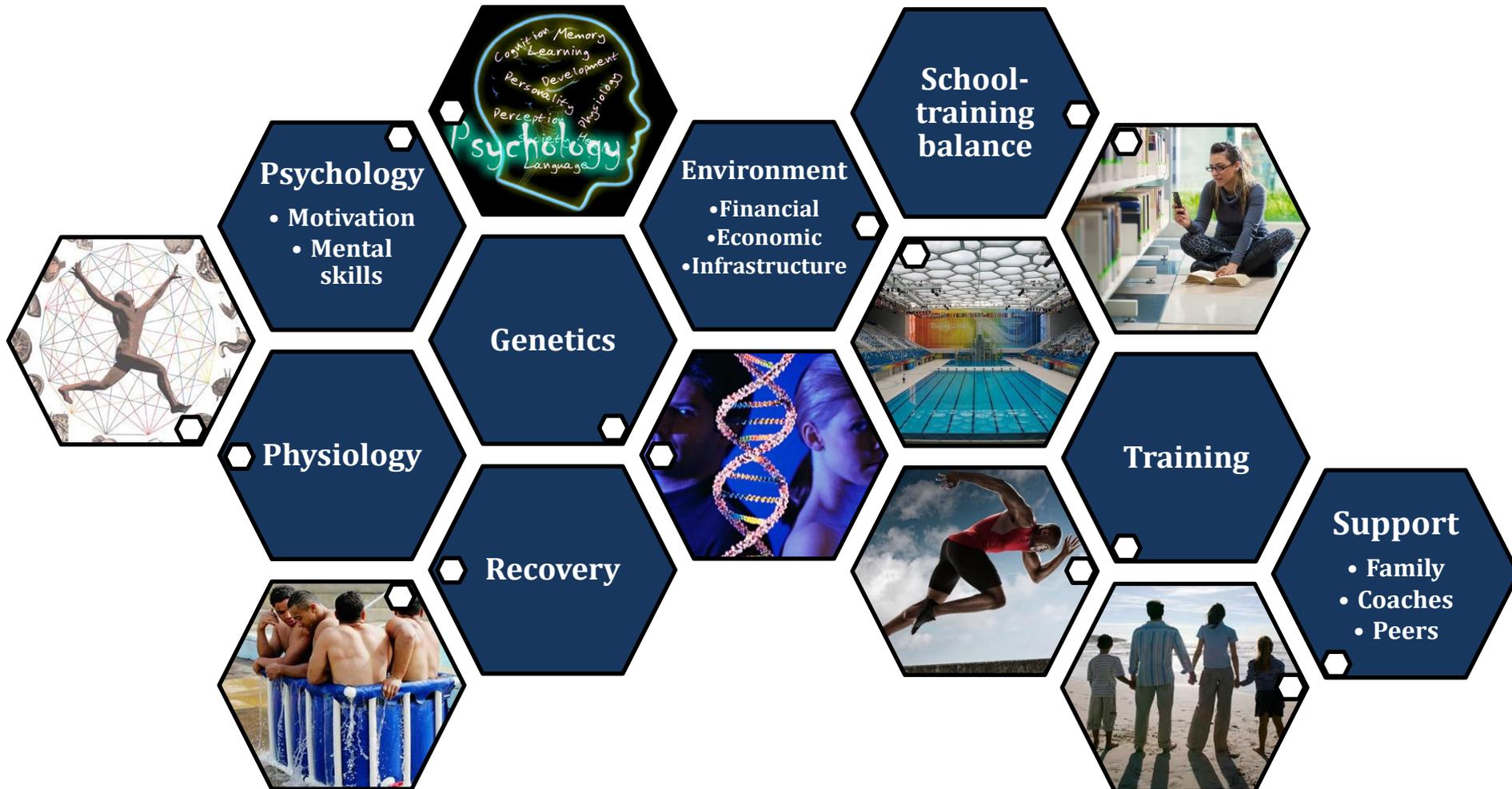


Risk alleviation strategies of TD²

- Align policy, process & practice
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Sport success depends on the dynamic interplay of factors coming together at the right time & space...



Multi-factorial contribution plus element of chance

Weight of contribution is difficult to quantify as it varies from sport to sport & athlete to athlete

SPORT SUCCESS

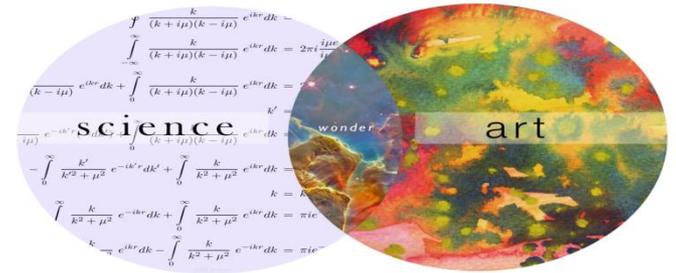


Fairplay	Willpower
Perseverance	Exercise
Sacrifice	Healthy Diet
Determination	Objective
Good Preparation	Motivation
Skill	Training



Macro versus micro factors
Individual vs team sport
Country, culture & context

Game Changer!



- Use of data analytics to better tease out more accurate predictors (physiological, psycho-social, support systems) of sporting success
- A better understanding of the role that genetics (combination of genes rather than one gene) and epigenetics play in sporting success
- Adapting or modifying existing systems to suit the country, culture and context in the quest for sporting success & accepting the element of chance (e.g. quality of the competition)
- Talent IDD is both a marriage of art & science & a healthy dose of risk-taking & positivity

Wisdom dictates....





Epilogue

Food for thought

Singaporean food



Nutrient Value	
Portion	320g
Energy	666 Kcal
Protein	30g
Carbohydrate	55g
Fat	44g

Watch the fat!

*Food on
cheat days
or off-
season*

Don't be a chicken, please have some Hainanese chicken rice...

What a crab?



Have it in Singapore not Chile

Nutrient Value	
Portion	400g crab meat
Energy	565 Kcal
Protein	45g
Carbohydrate	20g
Fat	34
Sodium	2139mg

Watch the salt!

*Food on
cheat days
or off-
season*

Food for thought- food of a champion?



Nutrient Value	
Energy	566 Kcal
Protein	12g
Carbohydrate	77g
Fat	24g

Black Fried Carrot Cake





Discourse, discussion, debate & direction are welcomed