

TOWARDS AN INCLUSIVE SOCIETY THROUGH SPORTS

# INCLUSIVE SPORT CONFERENCE 2021

DATE & TIME  
16 TO 18 MARCH 2021  
9AM - 5PM



Host



Co-host



# Perceptions of swimming opportunities for persons with disabilities and the way forward for an **INCLUSIVE SWIMMING FRAMEWORK**

**Stefanie Ang** [Senior Manager - Disability & Inclusion, Sport Singapore]  
**Lim Li, Lee Wei Ren, Elsa Tan Ern Yee**  
[Graduates of Diploma in Nutrition, Health & Wellness, Singapore  
Polytechnic]



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**01  
THE ORIGIN**

# THE ORIGIN





02

# RESEARCH OBJECTIVES & GAPS

## RESEARCH OBJECTIVES

- To determine which factors that encouraged or hindered swimming participation in persons with disabilities (PwDs)
- To use appropriate recommendations from stakeholders to create a desired and suitable swimming framework in the future.



# TYPES OF DISABILITIES



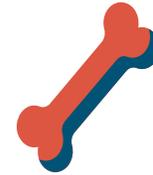
## SENSORY

Visual Impairment  
Deafness



## DEVELOPMENTAL

Autism Spectrum Disorder (ASD)  
Attention Deficit Hyperactivity Disorder  
(ADHD)  
Down Syndrome  
Cerebral Palsy  
Intellectual disabilities



## PHYSICAL

Amputation  
Muscular  
Dystrophy  
Paralysis  
Polio  
Spina Bifida  
Spinal Cord Injury  
Stroke  
Cerebral Palsy

# LACK OF A NATIONAL SWIMMING FRAMEWORK FOR PWDs

Currently, majority of programs are catering to the mainstream and PWDs with prior swimming experience.

Without a national swimming framework:

- Insufficient number of swim coaches coaching PWDs
- Rejection rates of parents/caregivers to take their child for swim classes
- Limits access for PWDs to swimming

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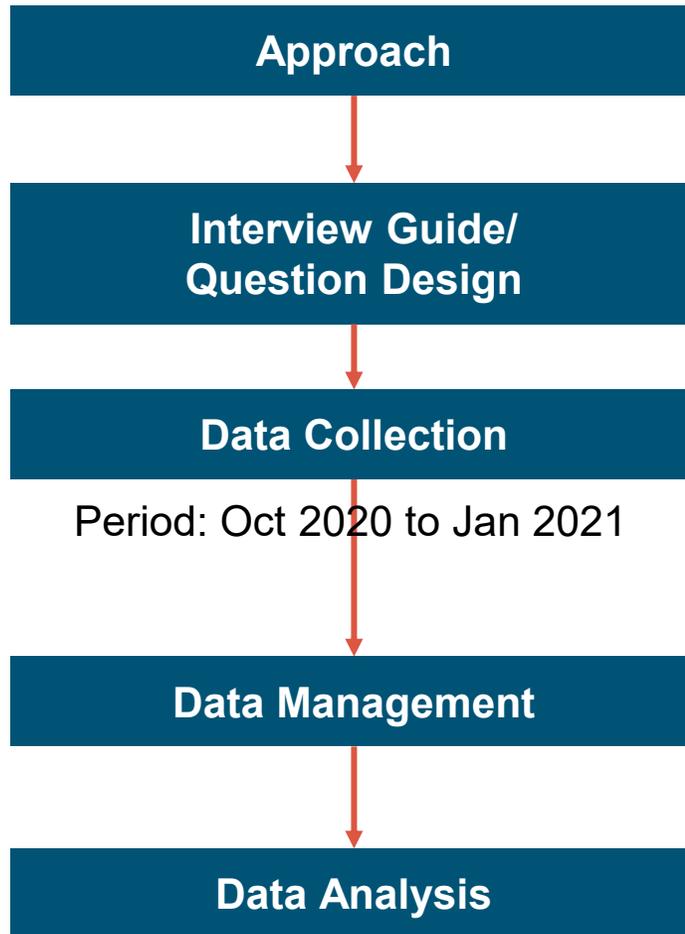


03

# **METHODOLOGY**

Of Research Study.

SSI-IRB Reference No: **ASG-EXP-005**

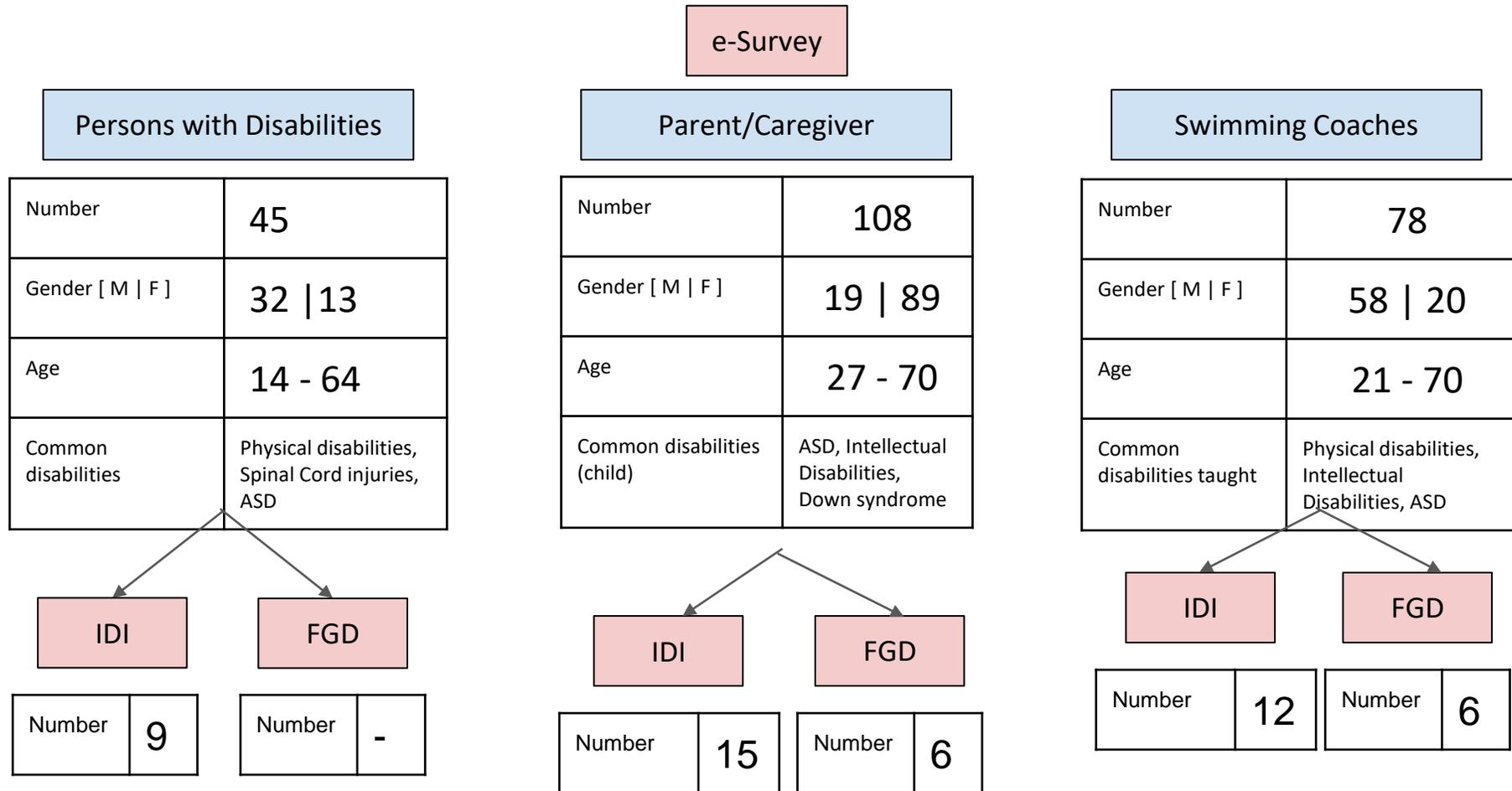


Adapted from: Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist*, 32(7), 513-531.

# SURVEY DESIGN

- Cross-sectional study
- **Mixed-methods approach**, qualitative and quantitative study design
  - In-depth interviews & Focus Group Discussions
    - Through Zoom.
  - Short -answer questions and MCQ
    - Via email through an electronic (e) survey

# PARTICIPANTS' DEMOGRAPHICS



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04  
**FINDINGS**

# BENEFITS OF SWIMMING

Current research shows that swimming has a positive impact on individuals with disabilities.



## 1. Muscular Functions & Movement

Coordination and Respiration [1]



## 2. Decreased Joint Loading

Buoyancy of Water [1]



## 3. Multiple Aspects of Health

Physical, Social, Mental [2]



## 4. Gradual Progression

High Viscosity of Water [3]

**5. Policy**

Efforts to develop inclusive frameworks

Lack of publicity on current policies [5], [7]

**1. Individual**

Desire to swim & Health benefits [4]

Cost [5] & Lack of motivation [6]

**2. Interpersonal**

Socialization [7]

Lack of assistance [4], [5]

## FACILITATORS & BARRIERS

**4. Organisation**

Minimal distraction & potential hazards [6], [8]

Lack of accessible inclusive facilities [7]

**3. Community**

Adaptable and welcoming staff [5]

Lack of acceptance & stigmas [6]

**Individual**

**Desire to swim &  
Health benefits [4]**

**Cost [5] &  
Lack of motivation  
[6]**

*"It builds up your immunity, build(s) up your strength and physique, and your breathing also improves. You don't need to actually do rigorous swimming, you can do leisure swimming. Some form of uh exercise."*

**- 005, PWD**

*We noticed that he really likes water play and he seems to be ready to learn so that's why we started looking for a coach I think the key was his readiness for it"*

**- 107, Parent/caregiver**

*"So [...] my concern is really the fees for this training"*

**- 003, PWD**

*"Not enough push, there is no personal reason to join, [...] because it's plain laziness to go down and get there"*

**-- 006, PWD**

## 2. Interpersonal

### Socialization [7]

Lack of  
assistance  
[4], [5]

*"the fact that that program had several people after you swim you talk a bit and things like that and there was a **social element as well**"*

*- 002, PWD*

*"I either need my husband to be available or I need a caregiver to be available, **so if nobody is free I can't go and swim.**"*

*- 007, PWD*

### 3. Community

Adaptable and welcoming staff [5]

Lack of acceptance & stigmas [6]

"[...] if the staff are sensitized and they know what to **anticipate for a certain kind of disability** then it'll make things much **more easier for a crowd to want to go in**"

-006, PWD

*"I think **generally society [is] not being open and receptive.**" & "I think the challenge is to erm, how to say, erm, **encourage the coaches to take on erm the swimmers**"*

*- 211, Swimming coach*

*"because of that (people still treating us the same) we are **not able to bring our kids more regularly** (to the pool) cause we are afraid that we may **disturb people**"*

*-106, Parent*

#### 4. Organisation

Minimal distraction & potential hazards [6], [8]

Lack of accessible inclusive facilities [7]

*"I think the **biggest thing is to let him be interested in it**, because different from kids they're not inspired to be a great swimmer and **my boy takes it more for fun thing(s)**, so we really have to find that is fun rather than it's hard training."*

*- 102, Parent/caregiver*

*"[...] I can still use the wheelchair accessible bathroom, but there's only one bathroom"*

*- 002, PWD*

*"inside the (accessible) toilet right, they **don't have any handles there**. Yea so like people like me that don't have any sitting balance, you know uhh **that will be quite dangerous.**"*

*-008, PWD*

5. Policy

Efforts to develop inclusive frameworks

Lack of publicity on current policies [5], [7]

*"[...] good lah that you are coming up with this initiative."*

*-106, Parent/Caregiver*

*" [...] I am a parent of a special kid, I am **not aware**, [...] you know I Google a lot and I study a lot and I try to find many options that are out there and available, and if these policies are not reaching out to me perhaps maybe there is some gap on how these things are reached out to. **Even the swim coach did not mention such things**, (so) from that perspective maybe I would say that the **government need(s) to do a bit more on the policy advertisement side** and that is for the betterment of it."*

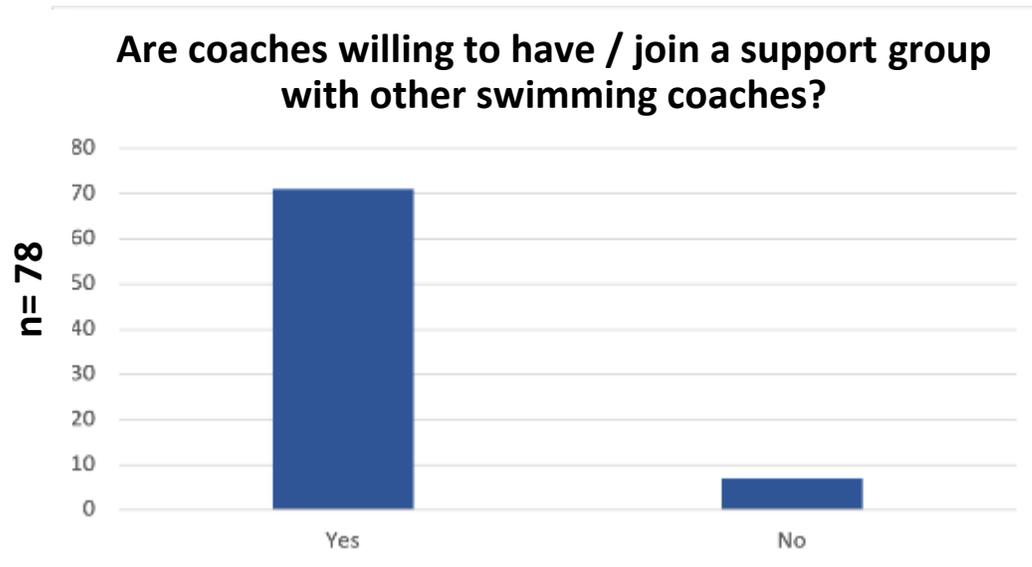
*- 113, Parent/Caregiver*

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**FOR SWIM COACHES**



On a scale of 1 to 5, \_\_\_\_\_ (Scale: 5 being most confident, 1 being least confident), How confident are you in coaching persons with disabilities?

	1	2	3	4	5
Believes that the current infrastructure is sufficient	1	4	15	14	9
Believes that the current infrastructure is insufficient	2	7	13	9	4

According to an analysis of association, it can also be seen that support through infrastructure is linked to the confidence of swimming coaches in teaching PWDs

# PRIOR TO STARTING SWIMMING CLASSES



1. Basic water safety taught first	2. Familiarisation of swimming pool and surroundings	3. Set clear expectation	4. Recap tasks learnt from previous lessons
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Suggested parameters		
Duration per session	Frequency	Duration of program
40 to 60 minutes	1 to 2 times a week	6 to 12 weeks

[9], [10], [11], [12], [13]

## DURING THE SWIMMING CLASSES



1. Count number of strokes per length [9]

2. Describe surrounding noise [10]

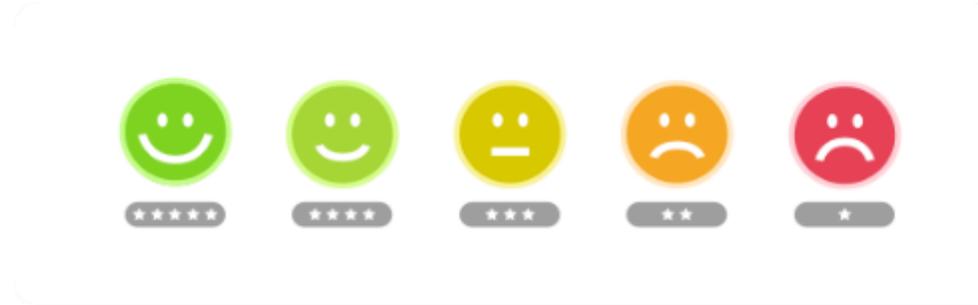
4. Verbal consent before physical contact [10,14]

5. Avoid singling out students [10]

6. Pay extra attention to safety [15]

## POST SWIMMING CLASSES

1. Participants can rate their perceived level of enjoyment of swimming session [12]



2. Review of tasks learnt in the lesson [12]

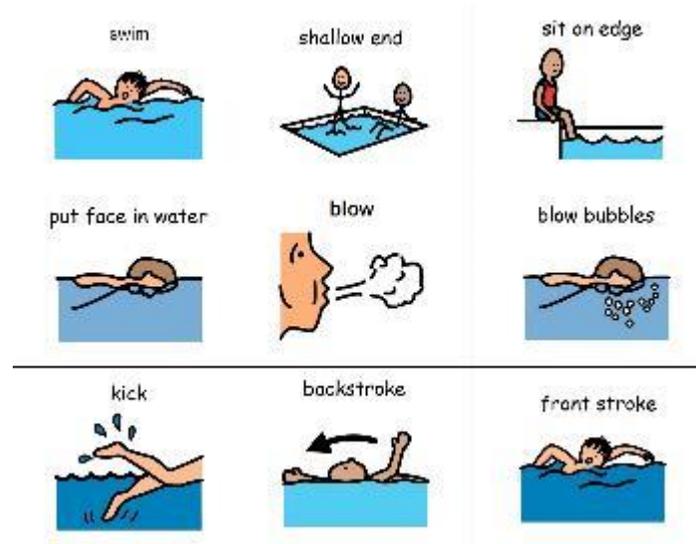
# RESOURCES & EQUIPMENT FOR TEACHING PWDS IN THE POOL



1. Sensory Profile [14]
2. Swim goggles for children with ADHD [14]



Floatation devices [10]

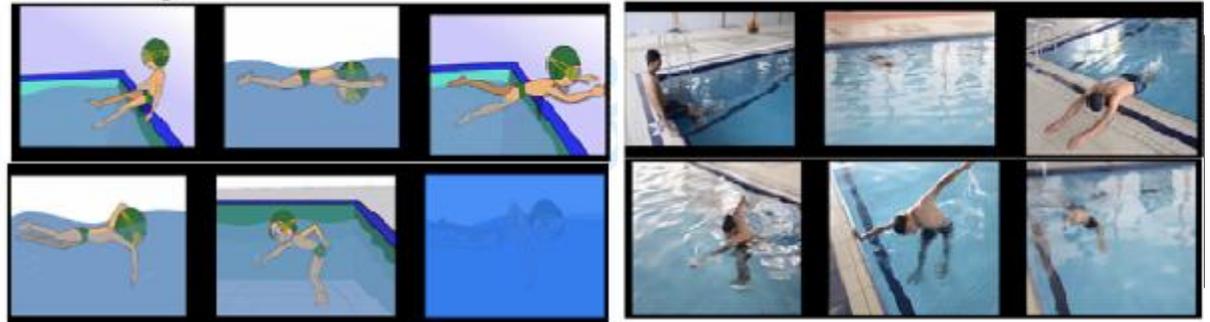


Visual aids - whiteboards, cue cards etc. [14,16]

## METHODS FOUND TO BE EFFECTIVE

Constant communication with parents & caregivers [17]

Use of animated videos or instructor swimming videos [18]



Having peers or sibling support through the swimming program. [19]

## ENVIRONMENTAL REQUIREMENTS



# START YOUNG

Physiological Aspect [20,21,22]	Psychological Aspect [20,21]	Social Aspect [21,23]
<ul style="list-style-type: none"> <li>● Higher self-control</li> <li>● Increased cardiovascular and cardiorespiratory endurance</li> <li>● Greater skills transfer (from wheelchair to pool)</li> </ul>	<ul style="list-style-type: none"> <li>● Develops self-confidence</li> <li>● Builds self-esteem</li> <li>● Pushing boundaries to explore / discover new abilities</li> <li>● Overcoming fear of water and its depth</li> </ul>	<ul style="list-style-type: none"> <li>● Increase in communication skills</li> <li>● Develop social skills</li> <li>● Increased family bonding</li> <li>● Higher social acceptance</li> </ul>

## DISCUSSION - PRINCIPLE CONSIDERATIONS OF THE ISF

1. Opportunities to swimming
  2. Entry and progression
  3. Structure programmes,  
water play and recreation
1. Framework is adaptable



## **OUR NEXT STEPS...**

**Resources  
development**

**Capability  
development  
opportunities**

**Pilot research  
with 1 to 2  
special schools**

**We would like to give special thanks to**



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**Ms Stefanie Ang**

Sport Singapore  
Project Lead and Supervisor

**Mr Paul Oh**

Singapore Polytechnic Project  
Supervisor

**Mr Wong Wai**

**Hong**

**Tenh Jin Kai**

**Koh Ancheng**

**Ms Foo Xu Hui**

SportSG project team

Stefanie Ang  
Sport Singapore  
[stefanie\\_ang@sport.gov.sg](mailto:stefanie_ang@sport.gov.sg)

THANK YOU!

ANY QUESTIONS?



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