



The barrier and benefits of sport participation for children with limb mobility issues (with a focus on sailing)

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Authenticity Statement

This is to certify that to the best of my knowledge; the content of this report is my work. This report has not been submitted for any subject or other purposes. I certify that the intellectual content of this report is the product of my work and that all the assistance received in preparing this report and sources have been acknowledged.

AI Use Statement

I have utilised Generative AI in this report for the purpose of researching sources

This report highlights the opportunities and constraints of facilitating children with limited limb mobility in sport by looking at adaptive sailing as an in-depth case study. The study utilise a literature review, a parent questionnaire and one on one interview with sailing coached and Paralympian in the sport, pointing to a few things, universally known all sport is beneficial both mental and physical but the art of sailing has a series of barriers that restrict participation.

Of high significance is the cost and inaccessibility of specialized adaptive equipment. Products that are available do not cater to children, cannot be customized, and are too expensive, thus acting as a hindrance to long-term involvement. Parents also cite high cost and the lack of dependable, trained staff as significant barriers.

The study calls for urgent need for innovative design solutions to address such gaps. In a bid to provide an inclusive setting, future work should be focused on developing affordable, highly versatile, and child-friendly equipment. With the resolution of such design issues, the community can eliminate substantial economic and physical impediments and step forward to long-term involvement and enabling a new generation of para-athletes.

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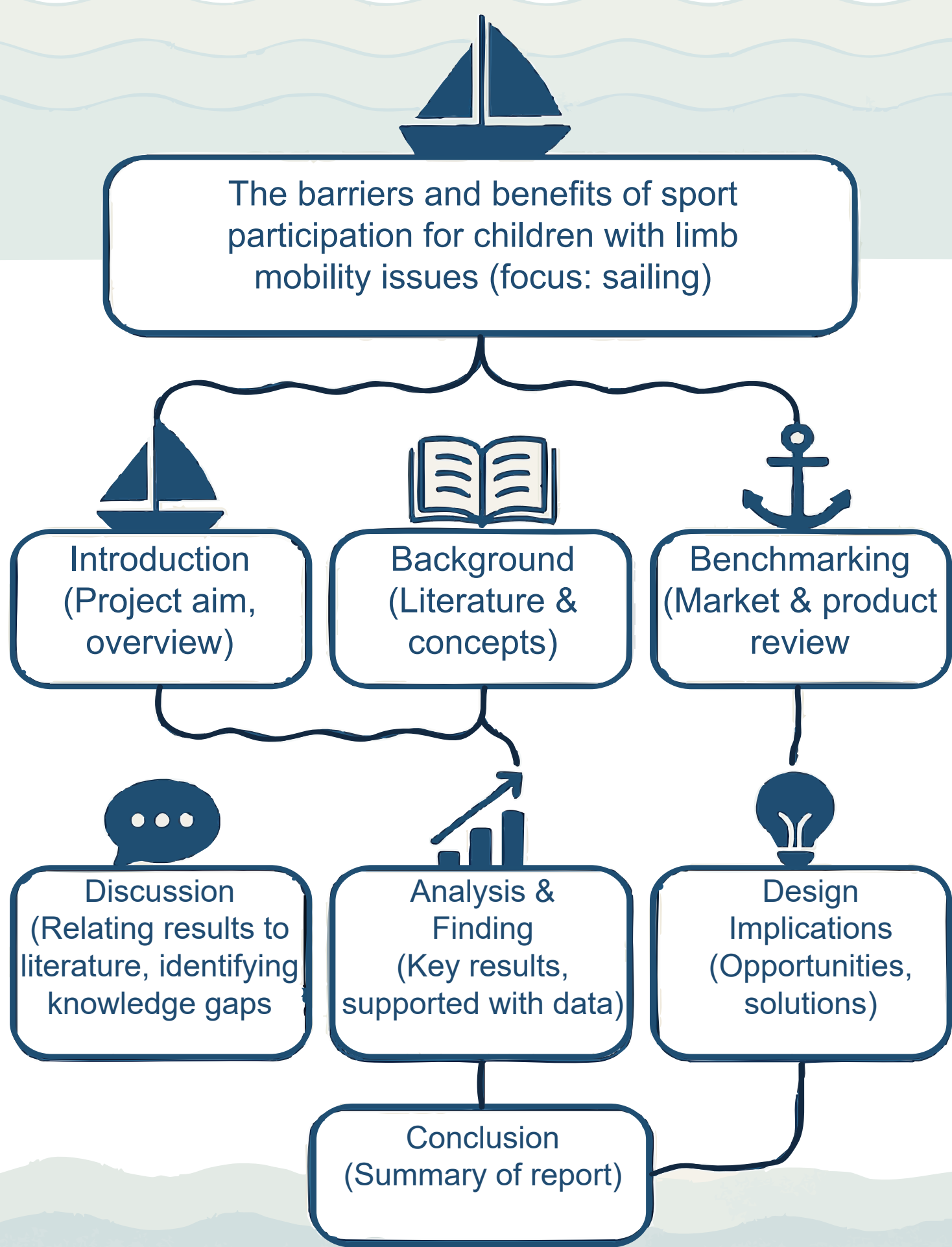




Section One: The Topic

Sport is a vessel for a myriad of benefits, including physical, social and mental that can overall improve the well-being of an individual. This also goes for children with limited limb mobility, however they face a number of barriers that effect their ability to be included in the participation of sport. Sailing is an example of sport that has made efforts to cater to the physical limitations of individuals through adaptive strategies and products to promote inclusion. The first Paralympics was held in Italy in 1960, following the efforts of Sir Ludwig Guttman, who used sport as a rehabilitation tool for disabled veterans. This grew into international competitions and encouraged groups like the Cerebral Palsy International Sports and Recreation Association (CPISRA) to advocate for broader inclusion, contributing to the creation of the International Paralympic Committee (International Paralympic Committee, n.d.). Today, sailing is recognised as a para sport that is open to individuals with limb loss or deficiency, cerebral palsy or brain injury, vision impairment, spinal and nerve injuries, and other physical impairments (Australian Sailing, n.d.). Despite the therapeutic and inclusive opportunities, sailing has been removed from the Paralympics due to a lack of participation internationally. This report focuses on the benefits and barriers of sport for children with limited limb mobility to reveal design opportunities within sport using sailing as a case study.

Project Structure



“The most common causes of physical and health disabilities are hereditary conditions” (Heller, Mezei, & Schwartzman, 2009) such as cerebral palsy and spina bifida, or acquired over time due to injury, illness or developmental disorders. These issues can often result in an individual losing their full range of movement, preventing them from participating in physical activities.

According to the Australian Bureau of Statistics (2025), 4% of Australians aged 0–24 have a physical disability, and 67.8% of those individuals need help with their day-to-day tasks (see figure 1). This shows the importance of making inclusive adaptations to allow young people with physical disabilities to participate in sport.

Children with disabilities are more likely than their peers to experience social isolation. In 2019, data showed that 29% of people with a disability reported they did not leave their home as often as they would like. Reasons included physical limitations, anxiety, and lack of transport options (Australian Institute of Health and Welfare, 2024, April 23). Furthermore, children with disabilities are at higher risk of mental health distress, and 89% of adults with disabilities do not meet physical activity guidelines (Australian Institute of Health and Welfare, 2024). Early intervention is important to prevent children from following this trend.

Barriers to sport for children with limited mobility can include:

- **Environmental barriers:** lack of accessible facilities and equipment, transport difficulties, and financial costs.
- **Social barriers:** lack of knowledge or experience from coaches and staff, peer attitudes, and family concerns.
- **Personal barriers:** low confidence, limited motivation, and physical limitations.

Parental involvement is critical in encouraging ongoing participation in sport, and stakeholders such as schools and coaches must create secure and welcoming environments (Geidne & Jerlinder, 2016).

Despite these challenges, participation in sport can bring a range of benefits for children with limited limb mobility. One review of 77 studies found that sport has a medium positive effect on physical impairment and a small positive effect on activity limitations (West et al., 2025).

Additional studies show that involvement in adaptive sport programs helps individuals develop emotional resilience, empathy, and a sense of social inclusion (Shao, Cui, & Bao, 2025). It also improves communication skills, builds relationships, and creates a strong sense of community and overall confidence (Oswald, 2021).

Sailing is a team-based sport that encourages collaboration and teamwork in a nature based setting. It also offers opportunities to develop skills, problem-solving, and a sense of empowerment, especially through adaptive equipment and assistive technology (Pecora & Carta, 2024). Sailing also provides access to “blue spaces” which are environmental spaces with water, shown to reduce stress and improve mental health (Geary et al., 2023).

Programs like Sailability in Australia aim to make sailing more accessible. Their motto, “anyone can sail,” reflects their mission to support clubs and staff through inclusive training, safety tools, and pathways for para sailors (Sailability NSW, 2019). The Para Inclusive Strategy 2024–2029 by World Sailing also outlines goals to increase youth participation by 30%, develop inclusive coaching materials, and reinstate sailing into the Paralympics by Brisbane 2032 (World Sailing, 2024).

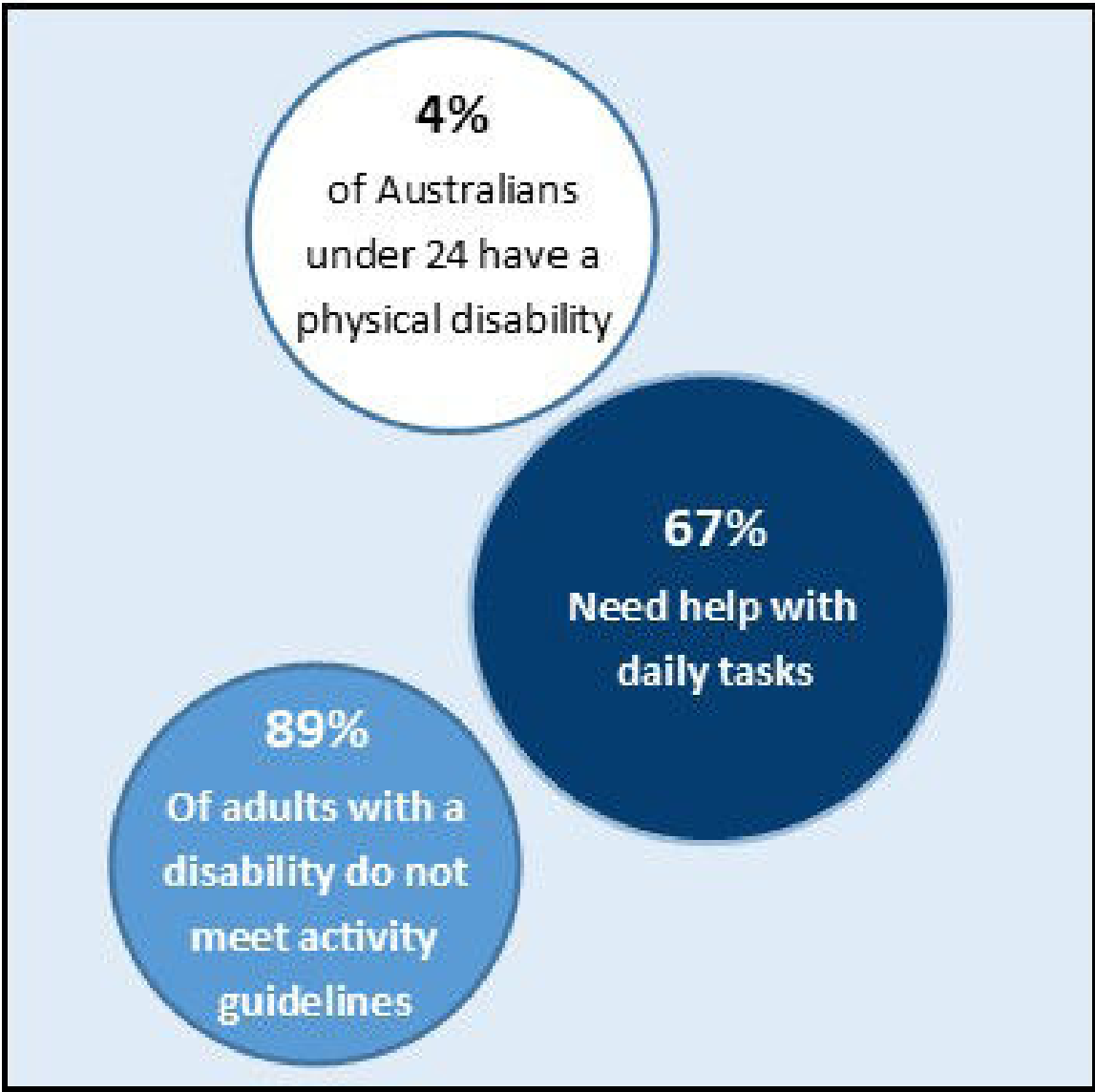


Figure 1

Introduction

This section is a comparison of existing adaptive products available to purchase by the general public that have been created to support sailors with physical disabilities to effectively sail and compete in the sport. Through these comparisons the aim is to identify gaps in the market that may have opportunities for design interventions that will make the sport more inclusive for children with upper and lower mobility issues and promote their continued participation.

Existing Products & Devices For Adaptive Sailing

Adaptive sailing products have two categories: adaptive sailing boats and supportive adaptive equipment. The full comparisons of key aspects of a range of adaptive sailing products were collected as seen in (Table 1).

Image	Product	Description/ Adaptive Function	Cost	Usability for children with limb mobility issues	Design Aesthetics Customisation	Durability/ Materials	Safety/ Stability
	Hansa Dinghy https://hansasailing.com/product/1050-303-single-complete-boat-ready-to-sail/	An adaptive 1 to 2 Person Boat that has a seat molded into the hull and a centre joystick. Primarily used as a novice or learn to sail boat it is considered extremely safe and ideal for individuals with physical disabilities to use.	\$12,189.85	Due to the inbuilt seat and far back sheet cleats this is an ideal boat for individuals with lower mobility issues. The central joystick also allows a reduced range of motion to steer effectively without the wide range of motion needed on a standard tiller.	Six deck & sail colours	Fiberglass Reinforced Plastic (GRP) hull. Impact resistant. Leaded centreboard.	Highly Stable due to a weighted centreboard that acts as a keel to prevent capsizing. Seating is low in the boat reducing the risk of falling out.
	Sip and Puff control with chest mount https://hansasailing.com/product/6363-sip-puff-in-chest-mount-enclosure-for-303s-liberty-systems-6161-6162/	An adaptive controller that uses air directed by the user's mouth to either push or pull to direct a powered system removing the need for any limb movement. This can be connected to a steering system or powered winches and is fully universal. Can be attached to the users chest with a mount or clamps	\$832.00	This control can be used by anyone with upper or lower limb mobility issues to control the sails or steering.	NIL	Electrical components, polycarbonate tube, stainless steel goosenecks and clamps. Would be affected by impact or water getting into the system.	Due to the involvement of electrical components there is always a risk of water getting into the system and damaging it. This can cause the system to malfunction that problematic when it is attached to the steering.
	2.3 Servo Assist System https://hansasailing.com/product/6133-80-2-3-servo-assist-system-80rpm-main-sheet-winch-and-helm-winch/	Powered winches connect to a joy stick controller and can either be used for steering or trimming sails reducing the need for physical movement and strength. Choice of controller—sip and puff, joystick or paddle controller	\$3,515.20	Powered system that removes the need for physical manipulation of ropes and tiller steering Ideal for individuals with upper and lower mobility issues and can be attached to a control system best suited for an individuals needs.	NIL	Comprised of electric components, aluminium winches & rope. Would be effected by water getting into the system.	Electrical components are at risk of being damaged and malfunctioning due to water getting in. this is mainly an issue for steering as it can cause the user to lose control of the boat.
	SKUD 18 Dinghy https://hansaclass.org/wp-content/uploads/2015/07/skud-18-tuning-guide-version1-january-2012.pdf	An adaptive high performance class 2-3 person boat for intermediate to experienced sailors. It is the class previously used in the Paralympics. Features a wider deck than traditional skiffs to allow one person to be seated in the centre of the boat. Is able to be customized with adaptive products for the individual needs of the crew.	\$48,133.43	Features a wide cockpit that allows for installation of adaptive equipment such as seating and motorised devices	NIL	Fiberglass Reinforced Plastic (GRP) Impact resistant. Leaded keel.	Claims to be "unsinkable" and has a weighted keel to prevent capsizing. Due to powerful sails the boat does sail on an angle so individuals that are unsecured or able to effectively hold in are at risk of falling out.
	H-Dock https://hansasailing.com/product/5521-h-dock-complete-with-2-walkways/	The dock comprises of a main float, ramp and x2 ramp support floats. This allows users in a wheelchair to roll up to their dinghy and slide in for safer transition into the boat from the rear.	\$25,455.26	Features a ramp and the fittings are available to install a hoist crane. Ideal for wheelchair users or individuals that struggle to enter boats from shore.	NIL	Ramp is Fiberglass reinforced plastic. Float is a marine grade plastic. Impact resistant.	There are no railings so may cause risk for the user accidentally falling in to the water during the transition from their chair. Relies on the installer having tightly and effectively tying the pontoon to land and putting it together.
	Hoist crane https://hansasailing.com/product/5321-stand-mount-crane-includes-fall-arrestor-spreader-bar-shackles/	A hand crank operated crane with a sling for transporting wheelchair users or other individuals that need assistance getting into a boat by lowering them in from a seated position.	\$4,381.00	Ideal for users with limited lower limb mobility or other physical issues preventing them from safely sliding into the boat.	NIL	Steel frame. Fabric sling. Could be affected by salt and corrosion over time.	Is the user is unable to hold on to the handle there is a risk of falling backward. The safety of the transition also relies on the operator of the crane.
	Bucket Seat https://hansasailing.com/product/2124-universal-bucket-seat/	A contoured seat that can be fixed into a dinghy to secure the user in place preventing them from sliding around or falling out of the boat.	\$488.44	Universal and can be used by anyone. Ideal for individuals with lower mobility issues to secure them to the boat facing forward.	NIL	Fiberglass reinforced plastic (GRP) Impact resistant. Waterproof.	Very Safe—fixed into the boat it prevents injury or accidents that could be caused from being unrestrained in a boat.

Table 1

The summaries of the products are as follows:

- 1)

Hansa Dinghy: An adaptive 1 to 2 Person Boat that has a seat molded into the hull and a centre joystick. Primarily used as a novice or learn to sail boat it is considered extremely safe and ideal for individuals with lower mobility issues.
Cons: Expensive price/ Not suitable for further sailing development.
- 2)

Sip and Puff Controller: An adaptive controller that uses air directed by the user’s mouth to either push or pull to direct a powered system removing the need for any limb movement. This can be connected to a steering system or powered winches and is fully universal. Can be attached to the users chest with a mount or clamps.
Cons: Risk of water damage of electrics/ Can be complicated to learn to control effectively.
- 3)

Servo Assist System: A series of powered winches that connect to a joy stick controller and can either be used for steering or trimming sails reducing the need for physical movement and strength.
Cons: Risk of water damage of electrics causing the user to lose control of steering or sails.
- 4)

SKUD 18 Dinghy: An adaptive high performance class 2-3 person boat for intermediate to experienced sailors. It is the class previously used in the Paralympics. Features a wider deck than traditional skiffs to allow one person to be seated in the centre of the boat. Is able to be customized with adaptive products for the individual needs of the crew.
Cons: Not suitable for children due to their size/ Very expensive/ Requires advanced sailing skills
- 5)

H-Dock: The dock comprises of a main float, ramp and x2 ramp support floats. This allows users in a wheelchair to roll up to their dinghy and slide in for safer transition into the boat from the rear.
Cons: No rails or stoppers to prevent falling into the water, Low platform making wheelchair transition difficult, High cost
- 6)

Bucket Seat: A contoured seat that can be fixed into a dinghy to secure the user in place preventing them from sliding around or falling out of the boat.
Cons: Fixed with rope knots to the boat that can cause risk if not done properly/ higher cost than necessary due to the manufacturing method.

Using the product data from Table 1, two comparison matrix maps were made to visually represent market gaps:

- Figure (figure number) visually represents the cost vs adaptability of the products showing a gap in the market for a low cost and high adaptability product option.
- Figure (figure number) represents the usability vs safety of the products and shows a gap for high safety and high usability product.

The identified opportunities are as follows:

- High Equipment Costs: Due to the high cost of the adaptive equipment currently available there is an economic barrier that prevents individuals from engaging in adaptive sailing outside of the entry level learn to sail programs.
- High Boat Costs: The labour intensive manufacturing methods and design trademarking that apply to adaptive boats like the Hansa and SKUD 18 dinghies inflate the overall cost past the point that most individuals are able to enter the sport.
- Limited independence: The products are often dependant on the physical input of a separate “able-bodied” party to help the user with some aspect, for example operating the hoist crane.
- Lack of Inclusivity: Adaptive boats are aimed at adults with no child or young person variations available suitable for their size, preventing the continued development past learn to sail beginner programs.
- Low Customisation & Adaptability: Minimal options exist for customization and adaptability between the products potentially preventing their effective use by a range of individuals.

Section Summary

The benchmarking process demonstrates that while there are adaptive options that allow individuals with upper and lower mobility issues to sail, there is still a lack of product options that are cost-effective, child orientated and customisable that promote continued participation in adaptive sailing.

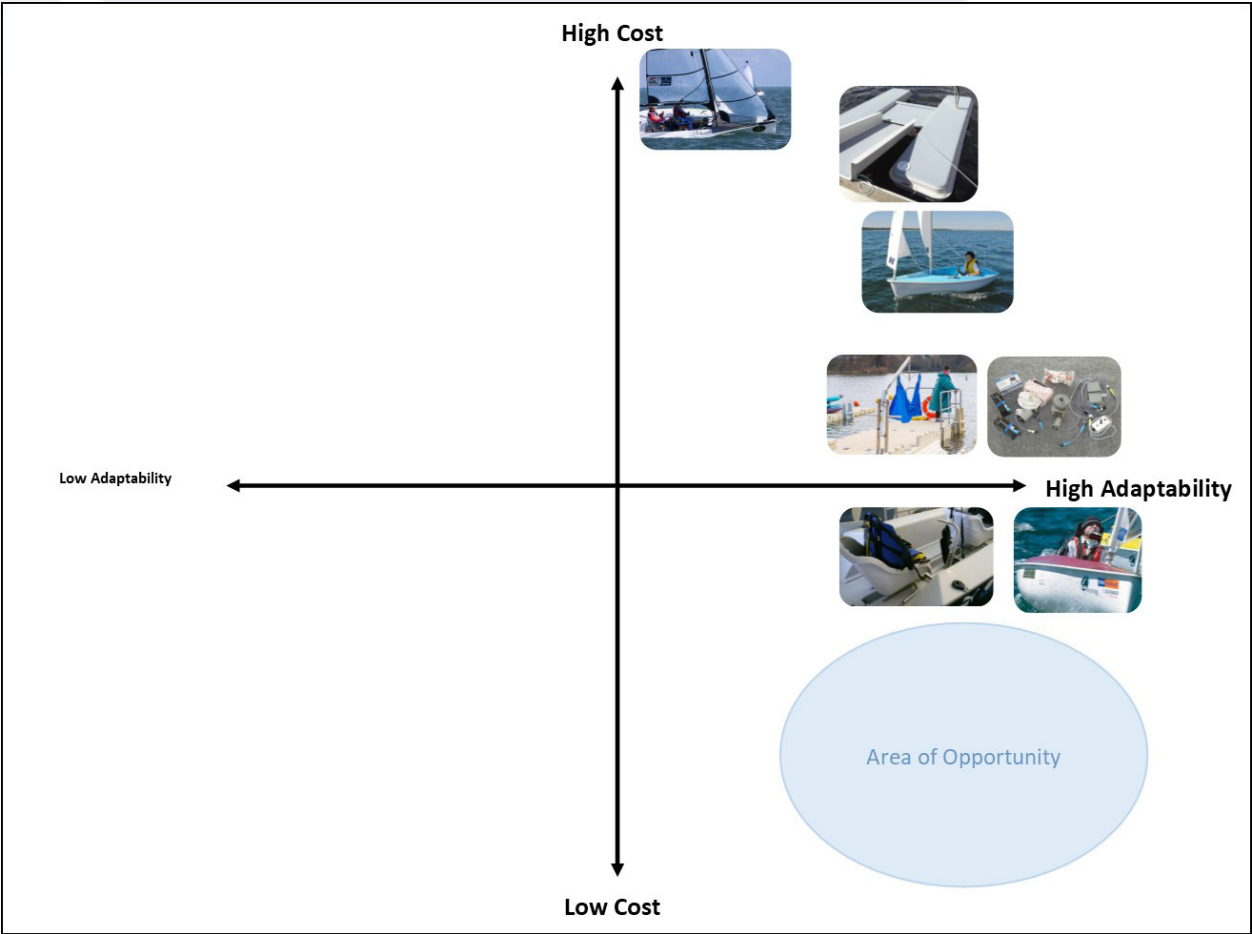


Figure 2

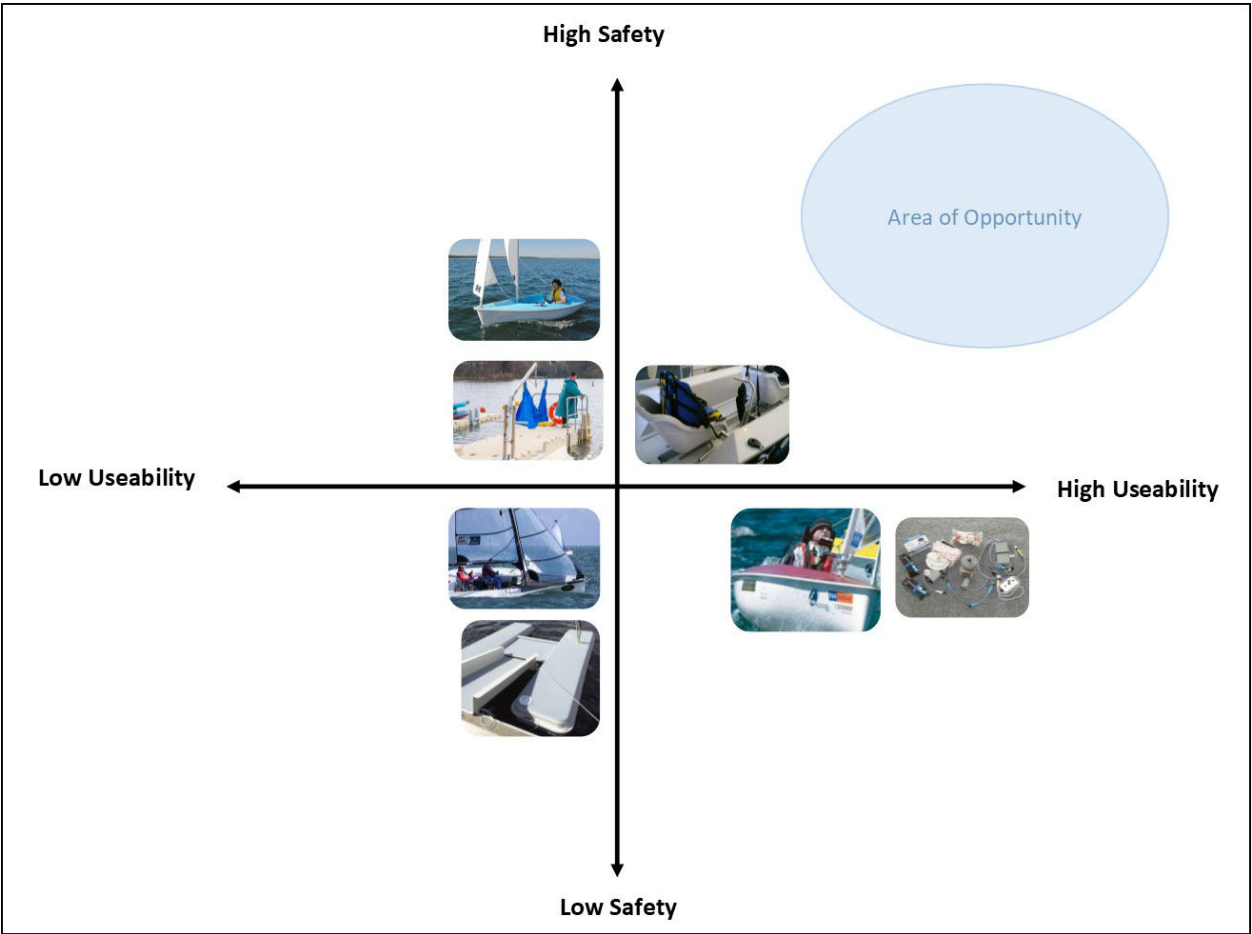


Figure 3



Section Two: The Research

Survey Method Description

Participants: 10 Participants were chosen and were parents of children under the age of 6 to allow a greater level of introspection on what their outlook on having their children participate in organised sport without the influence of past experience with these programs or systems. The survey questions aimed to gather information about barriers and facilitators from a parent’s perspective and the feelings around organised sport in general. Ideally participants would have consisted of parents of children with limb mobility issues however due to a lack of access to those individuals their specific input was unable to be obtained.(See Figure 4)

Survey to Understand Parent Attitudes Toward Organised Sport

Ashley Pyke - Industrial Design Student QUT - Data collected for the research report: Barriers & Benefits of Sport Participation for Physically Disabled Youths

PARTICIPANT INFORMATION FOR CAPSTONE RESEARCH PROJECT:
- Survey -
Barriers & Benefits of Sport Participation for Physically Disabled Youths

Research team
Principal Researcher: Ashley Pyke Industrial Design Student
Unit Coordinator: Rafael Gomez Coordinator

School of Design/Faculty of Creative Industries, Education and Social Justice

Why is the study being conducted?
This research project is being undertaken as part of an Industrial Design Capstone project for Ashley Pyke (industrial design student, QUT).

The purpose of this project is to understand the barriers surrounding young people with mobility issues participating in sport.

1 → What best describes your sporting experience:*

	Yes	No
Currently participate in organised sport	☒	☐
Previously have competed in organised sport	☒	☐
Competed in sport in a school setting	☒	☐
Do regular recreational physical activity	☒	☐

Clear all OK

4 → Do you believe there are any other benefits to having your children involved in sport from a young age?*

Please write your answer below:

Type your answer here...

OK press Enter

Figure 4

With convenience in mind, the survey link and a description were direct messaged to participants via instant messaging apps including Facebook Messenger with the survey participant document information stated on the first page of the survey. This allowed time-poor individuals to access the survey on any device for their convenience and increased likeliness of completion.

Production & Delivery of the survey

Insight goals constructed following the background research on the topic and were used to write a series of questions. An online survey was decided as the most effective delivery system for participants for convenience and automated result analysis. SurveyMonkey was initially used to produce the survey however due to an unexpected paywall the survey had to be redone in a new program. The final online survey was produced in Typeform and consisted of 10 questions with types including:

- Question matrixes—to cluster certain themes and get more accurate results based on the comparative items
- Likert scale questions—to gauge feelings toward topics that may affect their choices when considering a sport for their children
- Ranking questions—to understand importance of areas and outcomes of their children participating in sport to the participants
- Written questions—to discover key words and phrases that may have been missed in the previous question designs and provide qualitative data insights

Interview Method Description

Participants: A total of 4 interviews took place including 2x past gold medallist Paralympians and 2x current adaptive sailing coaches. The participants were chosen due to their experience with long term sport participation and expertise on adaptive sport. Initial contact was made via text or calls to determine the willingness of the participants to take part in the research and emails were sent containing the interview participation and general consent documents. Due to the nature of one of the participant’s disability confirmation of consent was given via text after having received the email for their convenience. The interviews were conducted over the phone or in person depending on the convenience of each interviewee and was recorded and transcribed using the Otter AI app.

Production & Delivery of the Interviews

Based on the information gathered in the background research of this report questions were developed in order to better understand the barriers, benefits and facilitators for long term sport engagement and the current state of adaptive sailing. Separate interview structures were implemented between the Paralympians and adaptive sailing coaches to gain richer insights to their specific lived experiences. A semi-structured interview approach was used to allow for richer qualitative data to be collected as the participants were able to express their experience, observations and thoughts to a greater extent.

The question outcome goals for the interviews included:

- Gain understanding of barriers for children with a disability for sport participation
- Gain understanding of what facilitators allow individuals with a disability to participate in sport long term
- Gain understanding of the physical benefits of participating in sport
- Gain an understanding of the mental benefits of participating in sport
- Gain an understanding of the social impact as a result of participating in sport
- Gain understanding of their advocacy for participation in sport for youths with mobility limitations
- Gain an Understanding of the current state of adaptive sailing programs
- Gain an understanding of the future of adaptive sailing

The research methods used included 4x semi structured interviews (x2 on previous Paralympians and x2 on current adaptive sailing coaches) and 10 surveys with a mix of multiple choice and written questions to allow for a mix of qualitative and quantitative data to be collected.

Introduction

This section provides the summary results and analysis of research data collected through surveys and interviews with the aim of exploring the main benefits, barriers and facilitators that effect the participation of children with limb mobility issues participating in sport with a focus on sailing.

Survey analysis method

The comparative results were analysed to provide percentage results from the parents individual surveys and key words were taken from written responses resulting in a mix and qualitative and quantative data.

Survey results:

For potential facilitators: Of the parents surveyed 80% agreed that the trustworthiness of sports staff was related to their qualifications. 70% did not agree that it was important for their child to physically be able to do a sport to participate. There was a 50/50 split of participants when it came to whether they would enrol their child in a sport they were not familiar with. (See figure 5)

Will your familiarity effect your decision to enrol your child in a sport



Figure 5

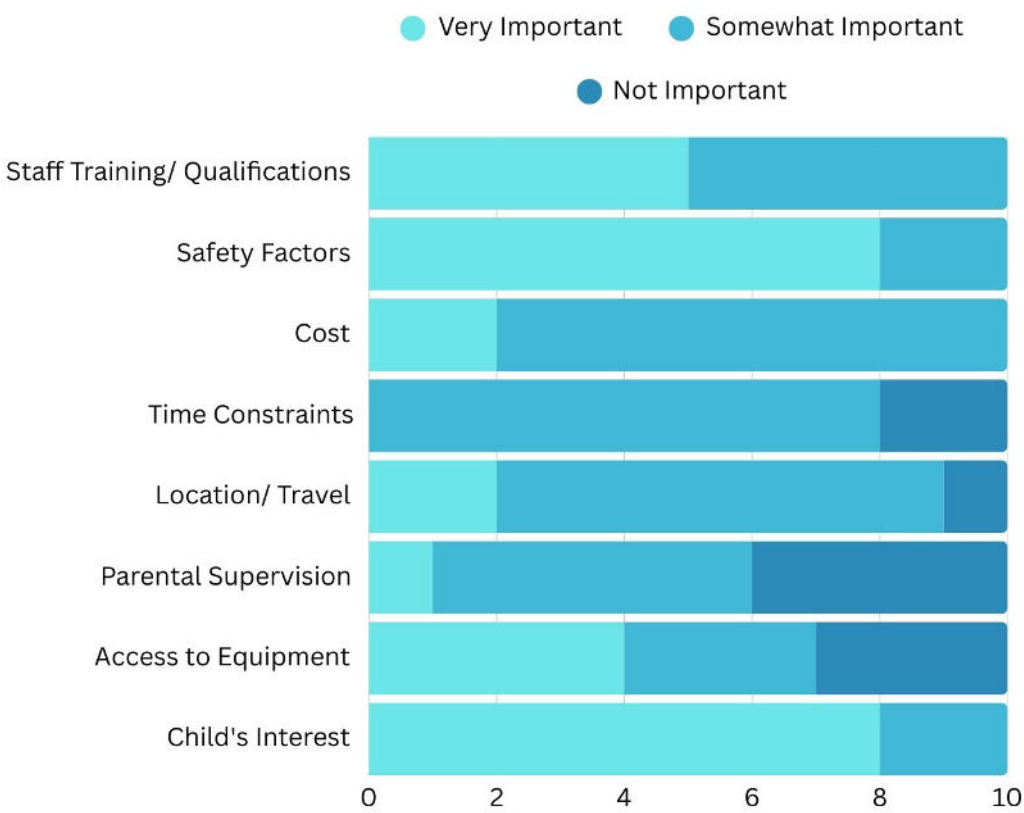


Figure 6

For potential benefits: Of the participants: 90% of parents agreed that seeing other children enjoying a sport and socializing would increase their likeliness to sign their children up to a sport and 80% thought information, recommendations and trying it themselves would improve their likeliness to allow their children to try a sport.

For potential barriers: Cost of the sport was shown as a possible deterrent with 80% saying it was somewhat important and 20% saying it was very important. Time commitments were also important to parents with 70% saying that it was somewhat important important as a potential barrier to participation of their children. See figure 6

Key phases that appeared during the written qualitative questions included: Cost, Safety, Organization Culture, Time constraints, Exposure, Personal History, Child Interest, Enjoyment, Resilience, Mental Wellbeing, Confidence, Physical Development, Emotional Development, Social Skills, Discipline/ Self Regulation

Interview analysis method

The interviews were analysed by categorising statements under the topics of barriers, benefits and facilitators before refining this into sub categories and finally tag words. In measuring the frequency of which these categories and tags appear, trends were identified within the statements and where they appeared in tandem with separate categories to ultimately establish themes. Interview results

Category, sub category and tag frequency were assessed (See tables 2 & 3) to identify problems/ trends appearing from the data (See Figure 7)
The main considerations that effect the ability for children with limb mobility issues to participate in sailing are as follows:

- Transitioning people with mobility issues into the boat is not standardized and is a process that can cause physical and psychological risk.
- Development restriction exists due to programs and facilities being unequipped to continue training past the basic learn to sail phase due to a lack of available staff/ trainers, adaptive equipment and funding.
- Unattainability of effective adaptive equipment due to expense, outdated designs and a lack of availability.
- Difficult Controls for different processes in the boat prevents participation and inclusiveness.
- Lack of exposure of the sport prevents interest in participation, especially for adaptive sailing.
- Transportation to facilities and the logistics involved reduce the willingness of individuals to continue.

Section Summary

The combined results from the interview and survey data confirmed some of the benefits barriers and facilitators revealed in the background information while revealing new considerations. The survey data revealed that parents are the main facilitators for children’s participation in sport with their main concerns including cost, staff trustworthiness and time constraints. Adaptive sailing has a variety of barriers that prevent initial and continued participation of children with limb mobility issues mainly centred around overall equipment costs.

Problem	Sub-Categories	Tags	Interview Examples
Transition into Boat	Adaptive Strategies, Social and Psychological Barriers, Physical and Structural Barriers	Inclusion, Adaptive Equipment, Safety Unequipped Staff	The biggest challenge is more the physically getting in the boat." (0:11:48) – Danny Fuller "We just adapted a way of getting her in because she doesn't like being different from everybody else. So... we tip the boat on its side in the shallows..." (0:06:32) – Danny Fuller
Development Restriction	Physical and Structural Barriers, Economic and Logistical Barriers, Adaptive Strategies, Advocacy and Awareness, Educational Barriers	Funding, Adaptable Equipment, Stigma, Unequipped Staff	"I think it's hard for people just getting into the boating, rigging the boat up. It's a lot of manpower, you know, so I don't think the structures there, there's some Sailability clubs that limit, but not really high-performance." (0:19:24) – Dan Fitzgibbon "Trying to find a coach was very, very hard. Every coach, bar one, said no... because they didn't even want to look at meeting someone with a disability." (0:01:34) – Rachael Watson
Unattainable Equipment	Economic and Logistical Barriers Systemic Barriers Educational Barriers Adaptive Strategies	Adaptable Equipment, Parental Support, Inclusiveness, Funding	"The big barrier to entry is cost. And so we've been culturally beholden to using all this equipment that was designed, you know, often 20, 25, 30, 35 years ago, there's been no new cost-effective equipment that's been designed in a very, very long time." (0:19:54) – Adrian Finglas "The sport hasn't investigated one of the key issues is the affordability of the product, and I think until the sport takes a really hard view on that... I think the sport will never grow. It'll always be in the too costly basket." (0:22:05) – Adrian Finglas
Difficult Controls	Physical and Structural Barriers Economic and Logistical Barriers Systemic Barriers	Inclusiveness, Adaptable Equipment, Unequipped Staff, Modification	"I could see little issues we might have—that steering might be a bit hard for both of them. So we might need to look at ways we can adapt that." (0:10:41) – Danny Fuller "If everyone uses the boat that the most disabled person uses. Then there's no mistake. Everyone just uses this equipment. You can standardize and make it cheaper." (0:19:24) – Dan Fitzgibbon
Transport	Role of Support Networks, Motivation and Mindset, Advocacy and Awareness, Physical Barriers, Economic and Logistical Barriers, Social and Psychological Barriers	Funding, Independence, Inaccessible Facilities, Adaptive Equipment	"Logistics, which are a big barrier. So there's, you know, the financial cost... you're not just paying for yourself, but having to pay for a carer. How do you get from A to B if you're relying on someone taking you there and you're not independent?" (0:13:34) – Rachael Watson "Our bus isn't suitable for wheelchairs... so we would go down in the deputy principal's car." (0:03:35) – Danny Fuller

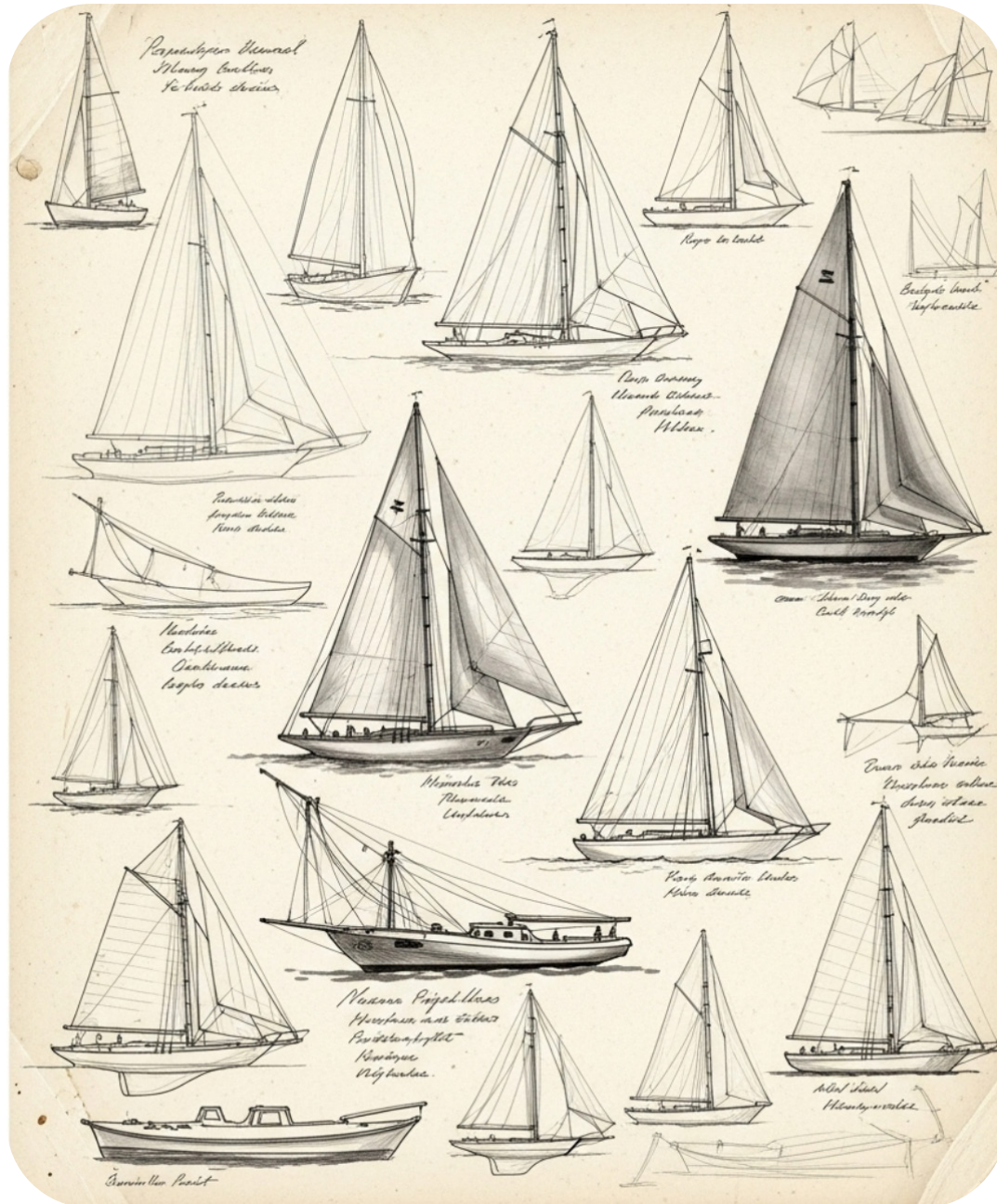
Figure 7

	Categories		
	Perceived Benefit Frequency	Barrier Frequency	Facilitating Factor Frequency
Physical Benefits	6	-	3
Social Benefits	11	-	8
Psychological and Emotional Benefits	12	-	12
Skill Development and Personal Growth	10	-	8
Physical and Structural Barriers	-	10	6
Educational Barriers	-	16	8
Social and Psychological Barriers	-	7	7
Systemic Barriers	-	11	7
Economic and Logistical Barriers	-	16	7
Role of Support Networks	6	3	8
Advocacy and Awareness	7	9	20
Adaptive Strategies	3	8	12
Motivation and Mindset	11	2	15

Table 2

	Categories		
	Perceived Benefit Frequency	Barrier Frequency	Facilitating Factor Frequency
Funding	-	3	1
Adaptive equipment	6	9	11
Educating Staff	-	-	1
Educating Kids	2	-	2
Blue Space	8	-	5
Nature	2	-	2
Safety	1	3	3
New Experiences	3	-	3
Equipment Cost	-	1	-
Inaccessible Facilities	-	3	3
Transport	1	4	5
Parental Support	2	6	5
Unequipped staff	-	6	7
Independence	5	1	5
Mentorship	3	3	4
Stigma	-	6	7
Resilience	2	-	3
Inclusiveness	3	4	5
Modification	-	1	2

Table 3



Section Three: Discussion and Design

The data collected in this report supported the background research discovered in regard to the physical, emotional and social benefits of sport participation in that it can positively impact the lives of children with limb mobility issues (Shao, Cui, & Bao, 2025).

Parental involvement was confirmed to be the key factor in facilitating for children's participation in sport (Geidne & Jerlinder, 2016). The survey data revealed that the main concerns parents have when choosing a sport for their child include the cost, time constraints and the training and trustworthiness of sports staff and the most favoured outcomes for their child being physical fitness, socialisation and skill development.

The research on sailing as a sport case study aligned with the collected data on the benefits of adaptive sailing (Pecora & Carta, 2024) and blue spaces (Geary et al., 2023), however its removal from the Paralympics reflects a deeper issue with the sport preventing continued participation. There remains a gap for children looking to develop their sailing skills past a learn to sail level demonstrating that the World Sailing Para-Inclusive Strategy is not effective for continued participation without intermediate adaptive boats suitable for children with limb mobility issues (World Sailing, 2024).

Adaptive products available allow inclusiveness to all individuals with limb mobility issues demonstrating that "anyone can sail (Sailability NSW, 2019), however the overall cost of adaptive sailing equipment and lack of options for children to develop past the beginner stage reduces their ability to continue participation long term.

The findings of this report reveal a number of areas where design intervention could improve the access, engagement and long-term participation of children with limb mobility issues in sailing. Due to a lack of exposure, high cost and lack of progression options due to the currently available adaptive sailing products there are clear design opportunities that have been revealed:

- 1) The overall cost of the sport is a major barrier for participation. Adaptive sailing equipment options that are cheaper through improved design and manufacturing methods would increase the economic accessibility of the sport.
- 2) Familiarity with a sport was a potential facilitator for parental support for their children participating in a sport. Opportunities to increase exposure would allow more children and parents to be aware of the benefits that adaptive sailing has for participants. This could include ways to allow spectators to view sailing without the need to hire a separate boat during sailing events.
- 3) Improved safety in products especially in regard to transitioning into the boat would improve the security in parents and reduce physical barriers for children with limb mobility issues participating in adaptive sailing.
- 4) Increased customisation options for controls and aesthetics could boost the universal inclusiveness of sailing existing adaptive boats making them more appealing to a range of individuals.
- 5) An intermediate skill option in the form of a new adaptive dinghy scaled for use by children that have developed past the beginner level may improve long-term participation in the sport.

In summary this range of design opportunities would allow design intervention to reduce the barriers that are preventing children with limb mobility issues from participating in sailing long term allowing them to experience the benefits that adaptive sailing has to offer.

In summary this report was an exploration into the world of sport participation and the barriers preventing long term participation of children with limb mobility issues specifically in sailing.

The main concerns of parents for allowing their children to participate in a sport were included cost, time constraints and trust in the training and qualifications of staff. The main benefits they see in sport are related to physical health, emotional development and socialisation for their children.

Sailing can be a positively impactful influence for children with limb mobility issues physically, emotionally and socially. Adaptive sailing has physical, systematic and educational that reduce its inclusivity to children past the beginner learning phase and design opportunities have been identified within the equipment, education, growth potential and exposure of the sport.

With these issues in mind, design interventions can improve the inclusiveness of the sport.



- World Sailing. (2024). Para Inclusive Strategy 2024–2029. World Sailing. <https://d7qh6ksdplczd.cloudfront.net/sailing/wp-content/uploads/2024/05/13120523/World-Sailing-Para-Inclusive-Strategy.pdf>
- Disability Sports Australia. (2025). Disability Sports Australia Strategic Plan 2025–2028 [Strategy document]. Disability Sports Australia. https://sports.org.au/wp-content/uploads/2025/04/Disability-Sport-Australia-Strategic-Plan-2025-2028_FINAL.pdf
- Australian Bureau of Statistics. (2025, April 30). Children and young people with disability, 2022. <https://www.abs.gov.au/articles/children-and-young-people-disability-2022>
- Heller, K. W., Mezei, P., & Schwartzman, M. N. (2009). Etiology of physical disabilities, health disabilities, and related low-incidence disabilities. In *Understanding physical, health, and multiple disabilities* (2nd ed., pp. 494–497). Pearson Merrill.
- Australian Institute of Health and Welfare. (2024, April 23). Social inclusion and community support (in People with disability in Australia). Australian Institute of Health and Welfare. <https://www.aihw.gov.au/reports/disability/people-with-disability-in-australia/contents/social-support/social-inclusion>
- Australian Institute of Health and Welfare. (2024). Health of people with disability. <https://www.aihw.gov.au/reports/australias-health/health-of-people-with-disability>
- Boman, C., & Bernhardtsson, S. (2023). Exploring needs, barriers, and facilitators for promoting physical activity for children with intellectual developmental disorders: A qualitative focus group study. *Journal of Intellectual Disabilities*, 27 (1), 5–23. <https://doi.org/10.1177/17446295211064368>
- Geidne, S., & Jerlinder, K. (2016). How sports clubs include children and adolescents with disabilities in their activities: A systematic search of peer-reviewed articles. *Sport Science Review*, 25(1–2), 29–52. <https://doi.org/10.1515/ssr-2016-0002>
- Murphy, N. A., & Carbone, P. S., & the Council on Children With Disabilities (CCD). (2008). Promoting the participation of children with disabilities in sports, recreation, and physical activities. *Pediatrics*, 121(5), 1057–1061. <https://doi.org/10.1542/peds.2008-0566>
- West, K., Hassett, L., Oliveira, J. S., Kwok, W. S. S., Geerts, M., Gilchrist, H., Gilbert, S., Anderson, R., Dario, A. B., Robertson, G. J., Baldwin, J. N., & Sherrington, C. (2025). Effects of sport and physical recreation on health-related outcomes among children and young people with physical disability: Systematic review with meta-analysis. *BMJ Open Sport & Exercise Medicine*, 11(2), e002350. <https://doi.org/10.1136/bmjsem-2024-002350>
- Shao, J., Cui, Z., & Bao, Y. (2025). Adaptive sports programs as catalysts for social inclusion and cognitive flexibility in inclusive physical education: The mediating roles of emotional resilience and empathy. *BMC Psychology*, 13, Article 770. <https://doi.org/10.1186/s40359-025-03092-2>
- Oswald, A. (2021). Change starts with sport: The public and private benefit of including people with disability in community-level sport. Melbourne Disability Institute, University of Melbourne. https://disability.unimelb.edu.au/data/assets/pdf_file/0009/3956724/Change-Starts-with-Sport_FINAL.pdf
- Bulger, G. (2023). Health benefits of outdoors: Physical and mental health benefits of access to outdoor recreation and nature for people with disabilities. Center for Urban Policy Research, Rutgers University. <https://cupr.rutgers.edu/wp-content/uploads/2023/08/Health-Benefits-of-Outdoors-White-Paper.pdf>
- Geary, R. S., Thompson, D. A., Garrett, J. K., & Williams, R. (2023). Green–blue space exposure changes and impact on individual-level well-being and mental health: A population-wide dynamic longitudinal panel study with linked survey data. *Public Health Research*, 11(10). National Institute for Health and Care Research. <https://www.ncbi.nlm.nih.gov/books/NBK597114/>
- Sidiropoulos, A. N., Glasberg, J. J., Moore, T. E., Nelson, L. M., & Maikos, J. T. (2022). Acute influence of an adaptive sporting event on quality of life in veterans with disabilities. *PLOS ONE*, 17(11), e0277909. <https://doi.org/10.1371/journal.pone.0277909>
- Sidiropoulos, A. N., Glasberg, J. J., Moore, T. E., Nelson, L. M., & Maikos, J. T. (2022). Acute influence of an adaptive sporting event on quality of life in veterans with disabilities. *PLOS ONE*, 17(11), e0277909. <https://doi.org/10.1371/journal.pone.0277909>
- Sailability NSW. (2019). Risk Management Manual [PDF]. Sailability NSW. <https://www.manlysailability.com.au/wp-content/uploads/Risk-Management-Manual-SNSW.pdf>
- Australian Sailing. (n.d.). Sailability. Discover Sailing. <https://discoversailing.org.au/para-sailing/sailability>
- Disability Sports Australia. (n.d.). Accessibility Champion Course. <https://sports.org.au/accessibility-champion/>

Image Reference List

- Hansa Sailing. (n.d.-a). Hansa 303 single complete boat ready to sail [Product page]. <https://hansasailing.com/product/1050-303-single-complete-boat-ready-to-sail/>
- Sip & Puff Chest Mount Enclosure Hansa Sailing. (n.d.-b). Sip-puff in chest-mount enclosure for 303s/Liberty systems [Product page]. <https://hansasailing.com/product/6363-sip-puff-in-chest-mount-enclosure-for-303s-liberty-systems-6161-6162/>
- 2.3 Servo Assist System Hansa Sailing. (n.d.-c). 2.3 servo assist system (80 rpm mainsheet winch and helm winch) [Product page]. <https://hansasailing.com/product/6133-80-2-3-servo-assist-system-80rpm-mainsheet-winch-and-helm-winch/>
- SKUD 18 Tuning Guide Hansa Class Association. (n.d.). SKUD 18 tuning guide (version 1, January 2012) [PDF]. <https://hansaclass.org/wp-content/uploads/2015/07/skud-18-tuning-guide-version1-january-2012.pdf>
- H-Dock with Two Walkways Hansa Sailing. (n.d.-d). H-Dock complete with two walkways [Product page]. <https://hansasailing.com/product/5521-h-dock-complete-with-2-walkways/>
- Stand-Mount Hoist/Crane Hansa Sailing. (n.d.-e). Stand-mount C-crane (includes fall arrestor, spreader bar, shackles) [Product page]. <https://hansasailing.com/product/5321-stand-mount-c-crane-includes-fall-arrestor-spreader-bar-shackles/>
- Universal Bucket Seat Hansa Sailing. (n.d.-f). Universal bucket seat [Product page]. <https://hansasailing.com/product/2124-universal-bucket-seat/>

Appendix

1 What best describes your sporting experience:

10 out of 10 people answered this question.

	Yes	No
Currently participate in organised sport	6	4
Previously have competed in organised sport	9	1
Competed in sport in a school setting	7	3
Do regular recreational physical activity	8	2

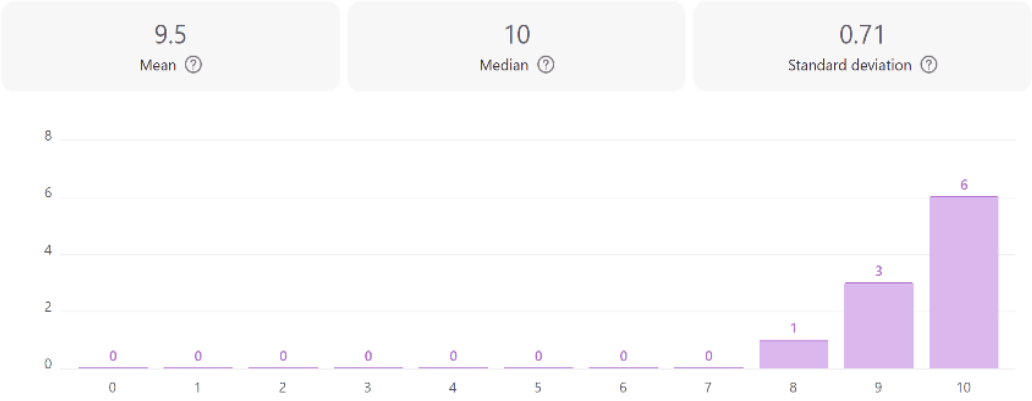
3 How would you rank these outcomes of sport participation for your child?

10 out of 10 people answered this question.

1 Physical Fitness	2.2 Mean
2 Socialising	2.3 Mean
3 Having Fun / Entertainment	3.3 Mean
4 Learning New Skills	3.4 Mean
5 Learning Healthy Habits	4.5 Mean
6 Being Outside	5.6 Mean
7 Competing Against Others	6.7 Mean

2 How likely are you to sign your children up for sport outside of school?

10 out of 10 people answered this question.



4 Do you believe there are any other benefits to having your children involved in sport from a young age?

7 out of 10 people answered this question.

- Search responses
- Building a sense of comraderie and teamwork when playing sport in a team, and contributing to their team's success
- Has some discipline from a young age
- Emotional development and self-regulation
- Builds their Resilience and mirrors life's ups and downs.
- Builds a child's self confidence
- Self-efficacy, developmentally assists physically, mentally and emotionally
- Enhance mental-wellbeing and build essential life skills eg. resilience

5

How important are the following factors in allowing your children to participate in a sport?

10 out of 10 people answered this question.

	Very Important	Somewhat Important	Not Important
Safety factors	50%	50%	0%
staff/ coach trust and qualifications	80%	20%	0%
cost	20%	80%	0%
time commitment	0%	80%	20%
location/ travel time	20%	70%	10%
ability for parental supervision during the activity	10%	50%	40%
access to equipment	40%	30%	30%
Your child's interest in the sport	80%	20%	0%

7

Do you agree with the following statements?

10 out of 10 people answered this question.

	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
Staff involved in the sport are more trustworthy if they have qualifications to work with children	20%	0%	60%	20%
For a trainer/ coach their experience with the sport is more important than their experience working with children	11.1%	33.3%	44.4%	11.1%
Parents should be present for the entire duration of the sporting activity	20%	40%	40%	0%
How familiar you are with a sport will effect your decision to enrol your child in a sport	20%	30%	40%	10%
You will prevent your child from trying a sport if you do not believe they can do it physically	20%	50%	30%	0%

6

Are there any other factors that may prevent you from allowing your child participate in a sport?

6 out of 10 people answered this question.

Search responses

Cost and working around parent's work schedule

6 days ago

Sport itself it's dangerous

7 days ago

Form of coaching and culture of the organisation

8 days ago

no

8 days ago

Yes, Times that do not fit with a household where both parents work. (There is often an expectation that sports happen during work ours)

8 days ago

Type of sport

9 days ago

8

Would the following factors influence your decision to allow your child to participate in a sport regularly?

10 out of 10 people answered this question.

	Yes	No	Maybe
Seeing other children enjoying the sport/ socialising	9	0	1
a free or low cost trial session for your child and yourself	8	0	2
detailed information about the sport/ program	8	1	1
recommendations from previous participants families	8	0	2
meeting instructors/ detailed background information	5	4	1

9

Are there any other factors that would increase the chances of you allowing to participate in a sport?

6 out of 10 people answered this question.

Search responses

N/A

6 days ago

I'm a huge fan in that sport

7 days ago

No further factors - however age of child may influence some of the previous answers

8 days ago

no

8 days ago

Mainly: Time, location, cost and if they will enjoy it.

8 days ago

Personal history with sport, my child saying they want to try it, exposure to the sport (on tv, socials), advertisement for trials of the sport

9 days ago

Adaptive Sailing Coach – Interview

Danny Fuller

29/08/2025

Ashley Pyke 0:27

So, Danny, the program that you're actually involved in, separate to a the Sailing School Adrian's running down there. What are you actually what kind of program are you working under, is it Gumdale state school, or is it a different program?

Danny Fuller 0:47

Yes, so Gumdale state school, I'm a PE teacher there, and I lead the sailing. So we have from year two to year six, they all do a term of sailing, and we make it inclusive.

Ashley Pyke 1:00

Okay, perfect. And so do you have to, in terms of the any of the children that have got some extra physical needs, are they? Do you have to work under an NDIS scheme, or anything like that?

Danny Fuller 1:16

They would be in that scheme, yeah, through the school, but I don't do that side of it.

Ashley Pyke 1:21

Okay, So you're pretty well just under the Queensland education kind of umbrella, then in terms of your Yeah, okay, perfect, yeah, all right. And so your PE program and the actual sailing school, is that all funded through gundale state school, or is there extra kind of sources for your funding from the community?

Danny Fuller 1:48

We Yeah, so it's a user pay system, so the kids pay whatever the cost is, from our queue. They pay that. But if we have kids that are financially disadvantaged. We don't make it known public, but we they'll get it paid for them through the school. And we have our sailing is sponsored through the three hands that we own have sponsorship on them, and that's an annual deal. Oh, perfect. And we also have our own school bus that goes to and from we used to get to and from sailing, and that's sponsored by our biggest sponsor at the school, so for most of the participants that actually get into the sailing.

Ashley Pyke 2:39

So is it voluntary to choose, or is it usually leaflets sent out to parents to give them information about it?

Danny Fuller 2:47

Yeah. So we send out the information to parents and then they can opt out of it if they choose to.

Ashley Pyke 2:55

Okay, so it's generally a formal that is a part of the PE curriculum at dumbbell state.

Danny Fuller 3:02

Yeah. So, for example, this term, year five are doing PE, doing sailing for PE. So if they don't go to sailing, they stay here and they do an alternative health program. And so, yeah, that's, that's their only physical education they get this term is sailing.

Ashley Pyke 3:20

Okay, awesome, okay. And so with the actual sailing session. So if we're trying to focus on some of the kids that do have mobility issues, you know what's generally involved in these sessions for them?

Danny Fuller 3:35

So other than getting pretty well from getting off the bus to getting back on the bus, yeah, so up to this year, we haven't. We have, actually, we have had a kid in the past. So he was we he was in a wheelchair, so he would go down in the deputy principals car, just because our bus isn't suitable for wheelchairs. And then the other kids, their mobility issues at present aren't that big, so we, you know, they can still get on and off the bus themselves with with assistance. So any of those kids get a teacher aide assigned to them for the for going down to do sailing.

Ashley Pyke 4:24

So do you have just kids in the boat or is there usually an adult or one of the coaches in with all of the kids, or is it just depending on how well they're doing by the end of the term?

Danny Fuller 4:39

Again, yeah, so you've just nailed it, that some kids, I will get in with them, or a teacher aide will get in with them. Sometimes we will use another student that can sail to support them. And then with one of the girls in year five, she she's actually very comfortable on the water, and she actually leads the class for me, I get everybody else to follow her, and she'll support someone anxious in her boat with her. So we do the full gamut with it, from them being fully supported to them doing the supporting.

Ashley Pyke 5:12

So at this stage, is there anybody that has to be specially trained to work with the kids? But in terms of the teacher aids and such, do they have to be specifically trained to go out on the boat for the first time or with does there need to be anybody with a standing on the side ready?

Danny Fuller 5:36

Yeah, well, they the staff that come down. They work in that space so they're aware of, you know, if it's a child that has seizures or whatever the and they they will deal with the first aid. So you've got one that has seizures, we've got one that has diabetes, so the person that's assigned to them will look after that health space and on that make sure everything's okay. And then I help them out and train them up on how to use the Hansa. The instructors also help them out with supporting them out there.

Ashley Pyke 6:11

Is there any adaptive equipment that's currently on the Hanses or that you use with the boats, like, for example, like a hoist or a ramp for wheelchairs arms?

Danny Fuller 6:32

Yeah, we haven't used a hoist yet. Apparently, there is one we can use it down at the club that is used to get the larger boats in and out. We have one kid this year that needs getting in and out. She's quite big and not that mobile, so we've just adapted a way of getting her in because she doesn't like being different everybody else. So she doesn't like like like going in backwards off the pontoon. We actually tip the boat on its side in the shallows. And we adapt it for her, we've got a thick rubber cushion so the seat isn't as far down. So she turns around, sits in the boat backwards, while myself, or one of the instructors tip the boat so that the side is just out of the water. She turns around, sits in her seat, and then we straighten the boat up and swing her legs in and then take it to the pontoon. So, yeah, we need two others, I just pick guys that are calm with her. That's the biggest thing with her. So that's the two guys that have that the two instructors are just really calm, but you need that extra for body strength to tip the boat over to get her in as well.

Ashley Pyke 7:47

Yeah, perfect. So did these teachers aids that come out as well, that are trained to work with the kids, with the different with their different situations, do they usually come out on a support boat just to be around in case anything happens on the water. Or are they specifically in there, in the boats with the kids, just in case, right?

Danny Fuller 8:11

So the year five girl, we don't put the aids in with them, because she likes being with her friends. And you know, she's the one that supports the friends, yeah. But to the other extent, like some of them, yes, definitely put the aid in there with them. And sometimes, if it's a really anxious kid, I will get in just to keep them calm.

Ashley Pyke 8:37

Okay, and so, since you've been doing this for quite a while, have you seen any any benefits, like, have you heard anything from the kids or the parents, just about, you know, their experience getting on the water?

Danny Fuller 8:50

Yeah, well, the best example is the year five girl that really loves it. Her mum just loves it, that she's just treated like everybody else. So it's one sport where she can be fully included, because she'll be quite standoffish with all the other PE activities. But this one, she is just in there doing the full lesson. So I see that as the biggest benefit you can make them totally inclusive. And actually the other nice thing is, the other kids want to get in a Hansa because it's different to their boat, yeah? So it's like, you know, when you're doing inclusive, trying to make them everybody else wanting to be like them, rather than the other way around, yeah, that's probably what I find it is fully inclusive to make it that way. It's like you're not forcing it to be that way. It just happens on its own.

Ashley Pyke 9:47

Do you believe that the being out in nature is a big element of it, or is it the ability to, actually, you know, control a whole vessel around however you wish, that might be able to, you know, stimulate some of those emotional benefits?

Danny Fuller 10:06

I think both of those things again, with that year five girl, but then you can get the opposite in that some parents aren't comfortable on the water themselves, so they don't see that benefit. But I definitely think the overriding feedback from the parents is, this is great, our kids are out on the water. They're learning independence. They're sailing the boat on their own, and it's fully inclusive. They're not, you know, sitting in a boat and someone else is doing it for them,

Ashley Pyke 10:34

And so at this stage, are there any physical disability types that you're not currently able to accommodate?

Danny Fuller 10:41

I haven't hit one yet. Big challenge will be next year. We've got a boy, you know, on a walker at the moment, that's got a degenerative condition. I'm not sure what it is, but you can see he's declining with his physical equilibrium, and another boy has fairly intense cerebral palsy, so I reckon we will definitely get them in a boat. I could see little issues we might have that steering might be a bit hard for both of them. So we might need to look at ways we can adapt that.

Ashley Pyke 11:27

So What do you find the biggest issues or challenges that some of the kids might be having when they first getting into sailing so like, what do you think are the bigger issues that are going to be coming up with these kids with mobility issues?

Danny Fuller 11:48

I think it's more the physically getting in the boat. Yeah. And then you know from the chatter from the other kids, "what happens if this thing tips?", or "what happens when I get out there?". I find teaching them to sail the boat quite simple because, you know, they're sitting in close to the center line, so they can see where they want to go, and if they want to turn one way, they just move the handle that place. It's quite simple to teach that side of it, and I just leave the main sheet out of it initially, just worry about steering. And even great for the really anxious kids like that don't have mobility or physical issues, you can just get them in a boat and sit them down seated deep down in the boat, they feel more safe. So you can calm them right down, and they learn to steer really quickly. Hansas, they're a really handy boat for that as well.

Ashley Pyke 12:56

So do parents have any recurring things that bring up as concerns? Is it mainly, you know, safety?

Danny Fuller 13:19

I don't get the feedback from them, so I assume that they're actually happy. I've never really had that come up. Maybe once we did have an issue. And this is not so much about physical This is more on the water that one of our kids with diabetes had an issue one day just because it hadn't been checked often enough. And that's not really associated with the sailing itself.

Ashley Pyke 13:51

Do you think that Gumdale is pretty unique in trying to get the kids down to the sailing, or do you think that more schools will start doing similar things?

Danny Fuller 14:26

Part of it is our principal who is pushing resilience and independence in kids and he sees being out on the water. And like you're saying, with nature and having to work things out really important to this generation. Like things that fit to their resilience is quite low. So, yeah, we're very unique. We have a principle that's very supportive. I think we had a different principle that probably wouldn't happen, because you do get a few safety issues and experience where and uniquely, while it's a public school, it's an independent public school sponsorship. And the principles thinking behind that as well is that, because we're in an area surrounded by private schools, if we're not offering at least what they have, we don't keep our kids. So we need to be offering what others don't. So yeah, with what we have we're definitely unique. We have the best sailing program. We take kids most regularly. We offer it as Pe for five different age groups. We also do it a sport on a Wednesday and Friday, depending on the age group, and we're inclusive So someone who has a disability wants to join, they're welcome.

Ashley Pyke 15:52

fantastic. So, you know, as as these kids get older, do you see any of them wanting to kind of continue it, or ask you questions about trying to do this, you know, outside of school and go further with it.

Danny Fuller 16:09

I haven't, haven't yet. The one that I will be talking to is the girl that's in year five, because I really think she should continue with it. And I was going to try and steer her towards darling point to see if she wants to be involved, but again, whatever her friends are doing may be more interesting.

Ashley Pyke 16:34

Do you see a future in your program, especially for the kids who you know have got mobility issues, and do you ever see a future interacting with the Darling point sailing school and seeing if you can have, you know, friendly competition or just socialization, or, you know, anything, and encourage these kids to keep going?

Danny Fuller 16:57

Yeah, well, that's that's exactly where I'd like to lead with the promising kid that she's really good at it and loves it and if we could try and keep her in it. I guess one issue for our kids, they from finish here, go off to a variety of schools. So there's no clear link to where they can continue, like they might go to say, Moreton Bay girls, for an example, that if they go there, that they might get into teens racing, but it's not embedded in their curriculum anyway. Wynnum High School have started it so they now have a small program. So that's probably our clearest link. But we don't have many kids go there.

Ashley Pyke 17:42

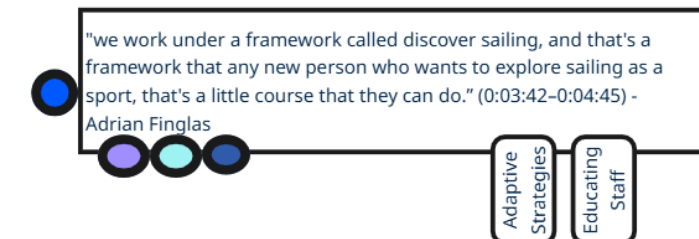
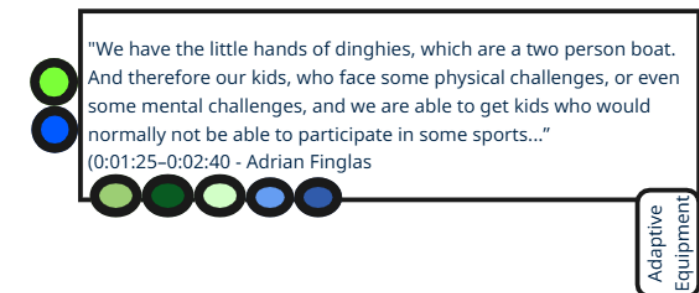
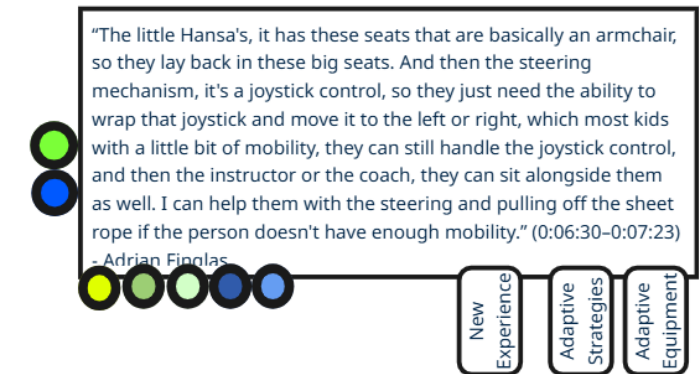
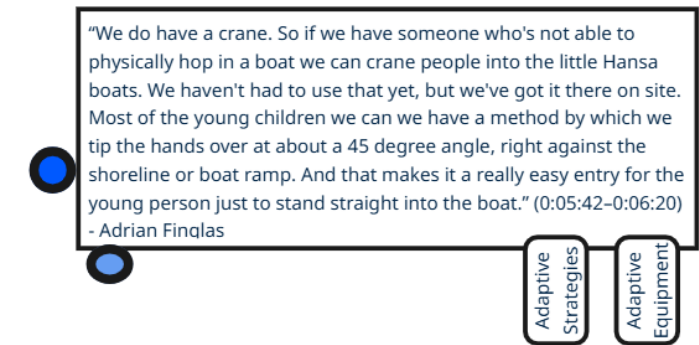
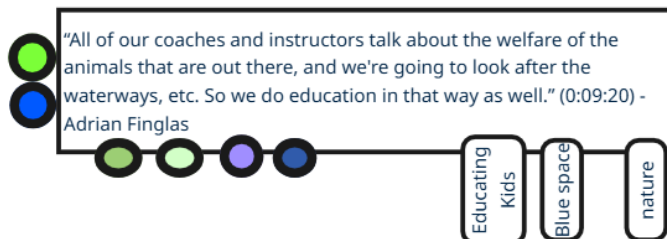
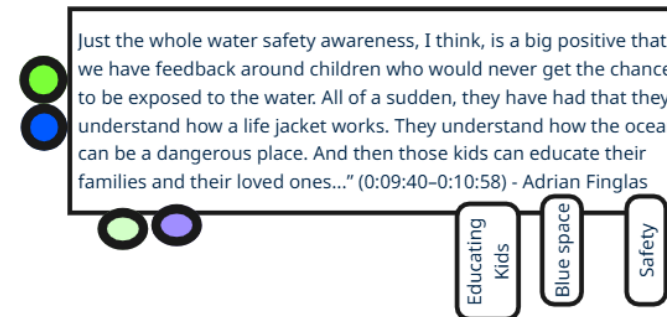
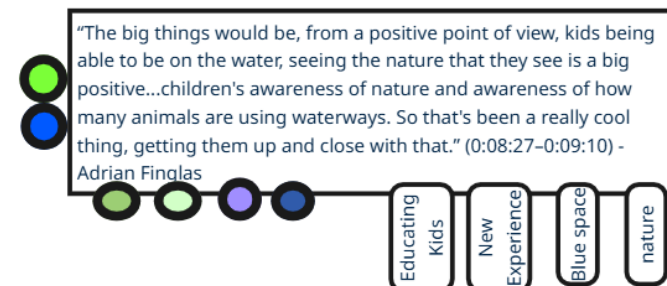
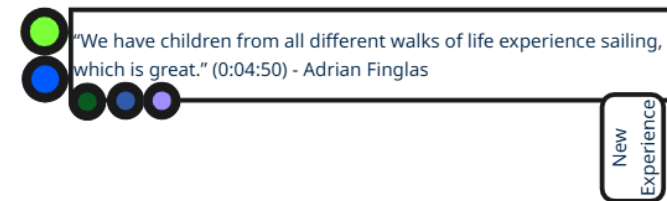
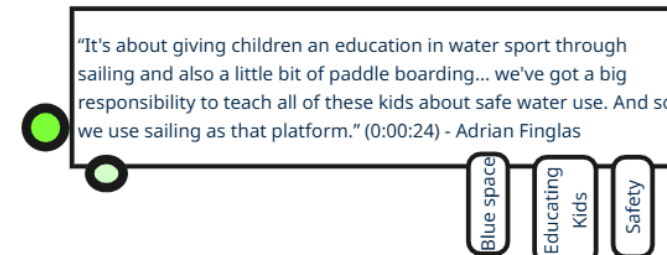
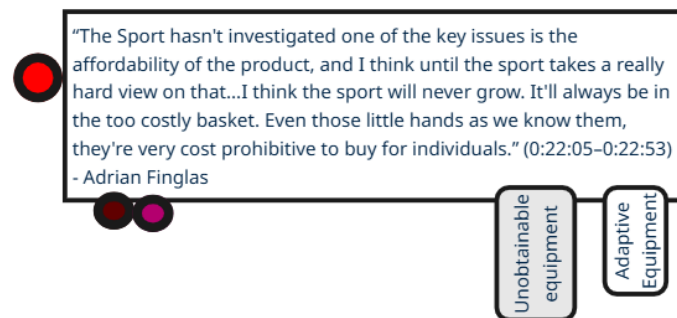
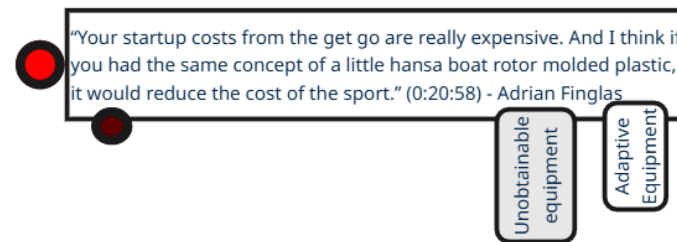
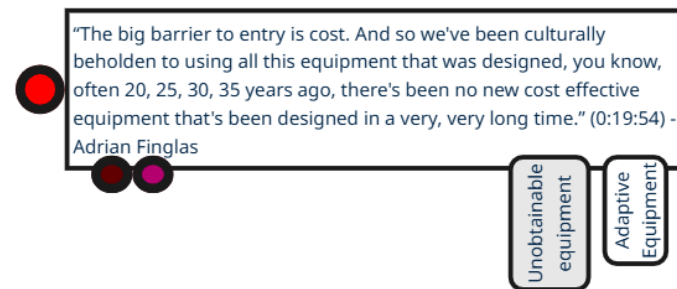
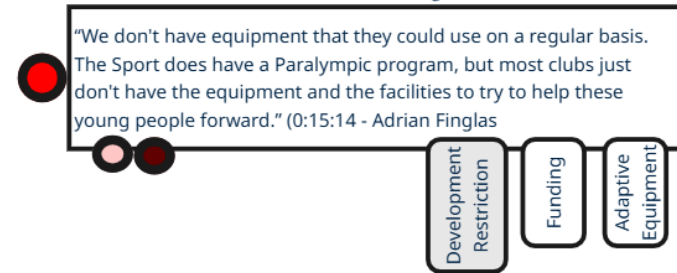
An extra question is, do you believe that there's any changes that could be made to learn to sell programs, whether it be yours or other ones around that might make these programs more appealing to children with disabilities and their families?

Danny Fuller 18:04

Oh, that's a good, really good question. I think we've got a really good angle for them as far as up until a certain age and weight. So, bigger people, yeah, that's probably an obstacle for us. So the (years) fives and sixes are already getting a bit big for the little plastic optics. So the hansas, they're really nice option. Get four or five kids in together, working together, and bigger kids can get in. So we set from the answer, I think that would be our next option. We need a slightly bigger one. So, yeah, I see that as our next obstacle, I think, and a voice putting kids in

Transcribed by <https://otter.ai>

Adrian interview analysis



Perceived Benifits

- Physical Benefits
- Psychological and Emotional Benefits
- Social Benefits
- Skill Development and Personal Growth

Barriers

- Physical and Structural Barriers
- Social and Psychological Barriers
- Economic and Logistical Barriers
- Systemic Barriers
- Educational Barriers

Facilitating Factors

- Role of Support Networks
- Adaptive Strategies
- Motivation and Mindset
- Advocacy and Awareness

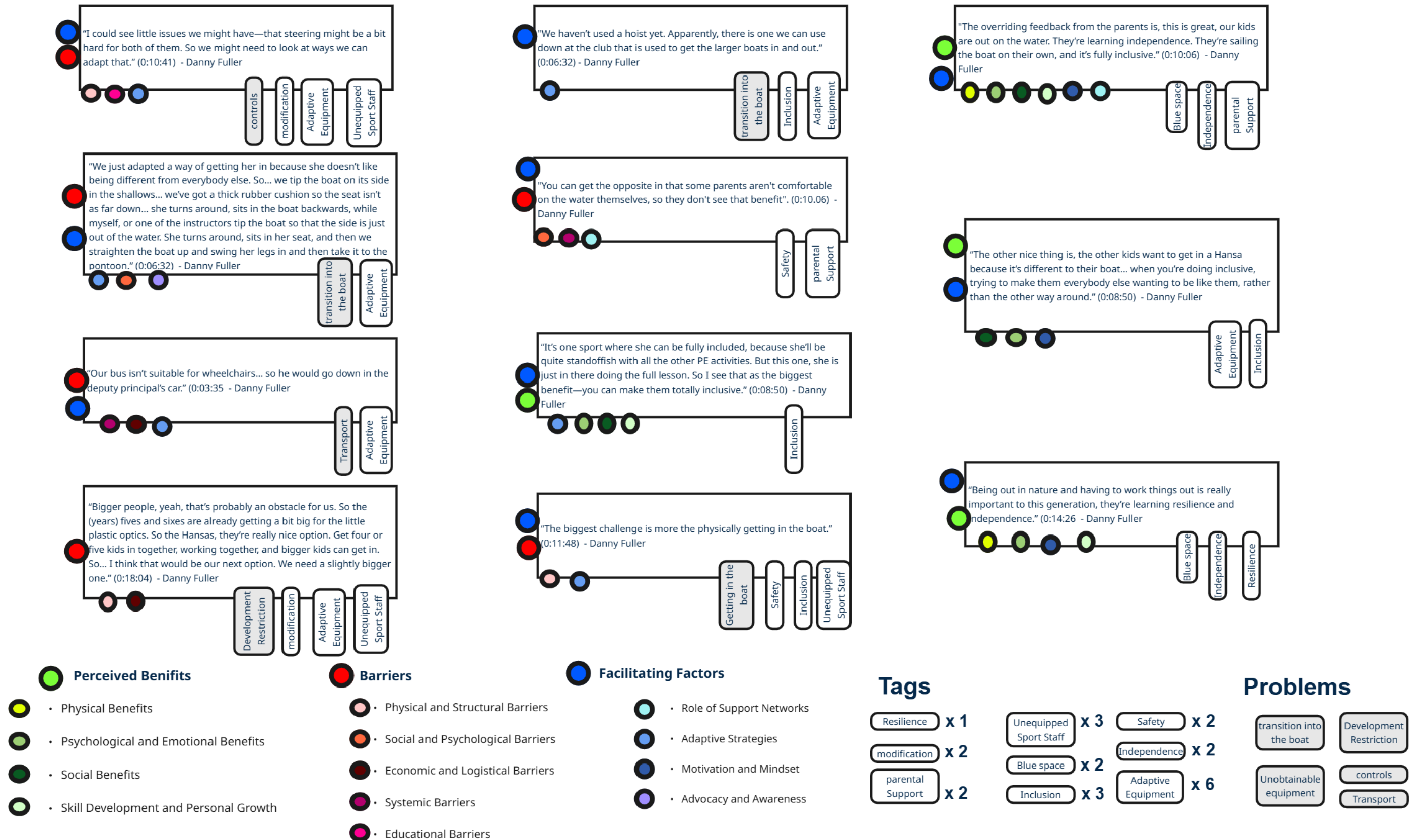
Tags

Funding	x 2	Educating Kids	x 4	New Experience	x 3
Adaptive Equipment	x 4	Blue space	x 4	Funding	x 2
Educating Staff	x 2	nature	x 2	equipment cost	x 5
		Safety	x 2		

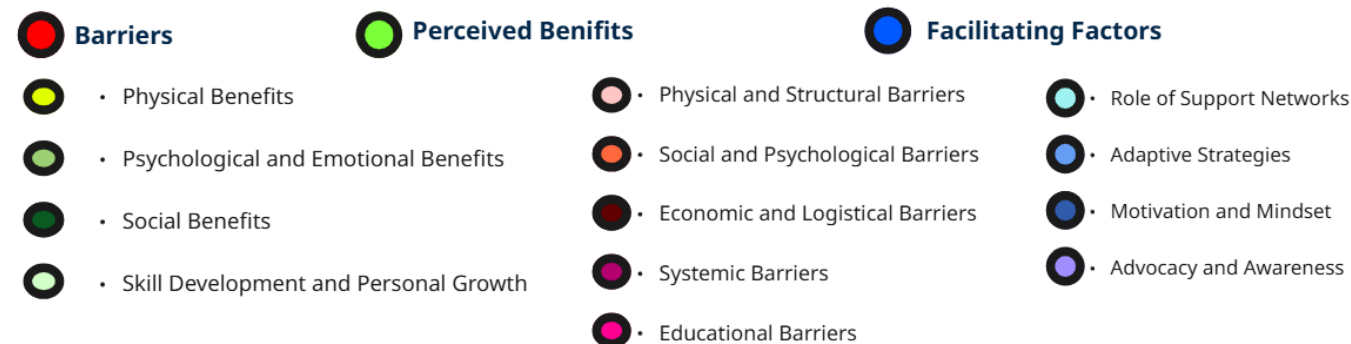
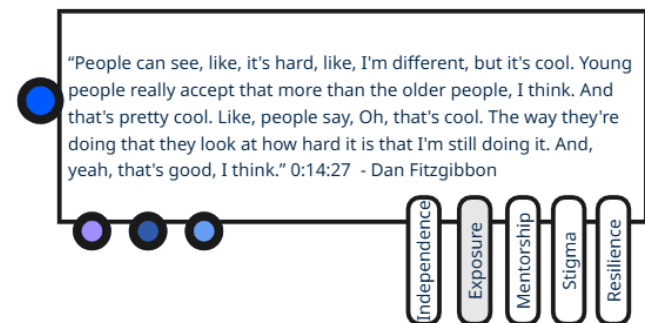
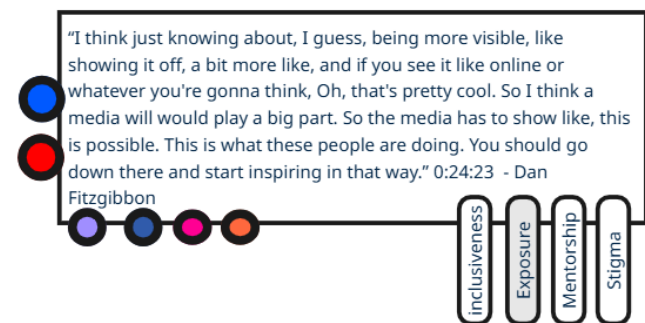
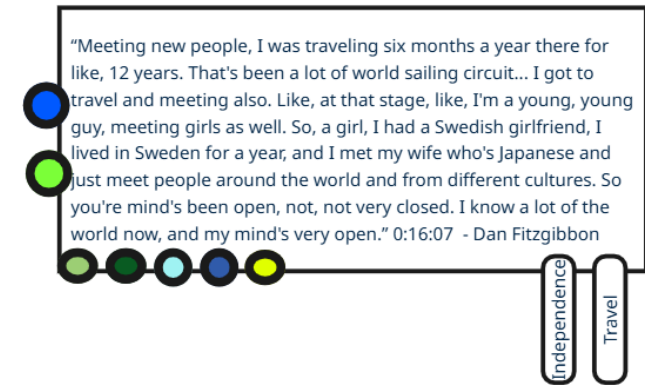
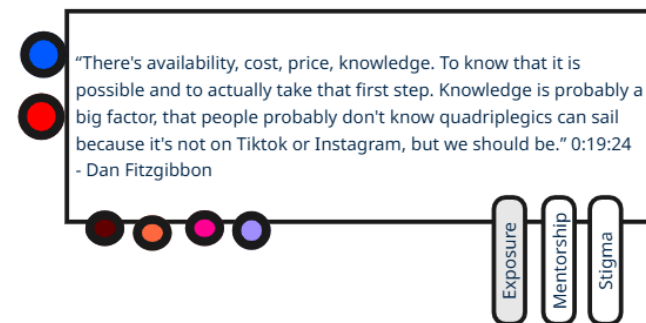
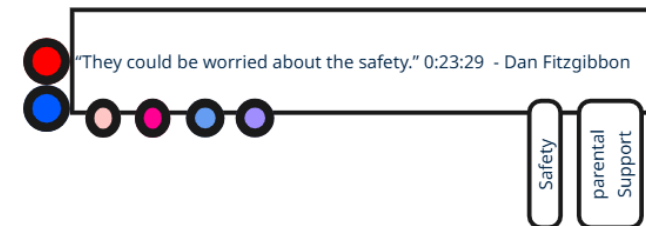
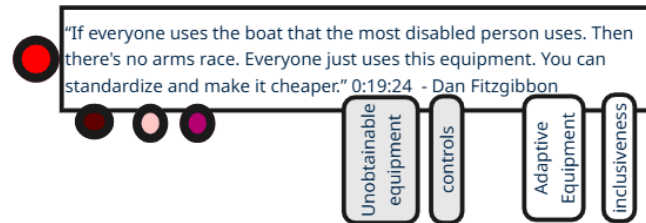
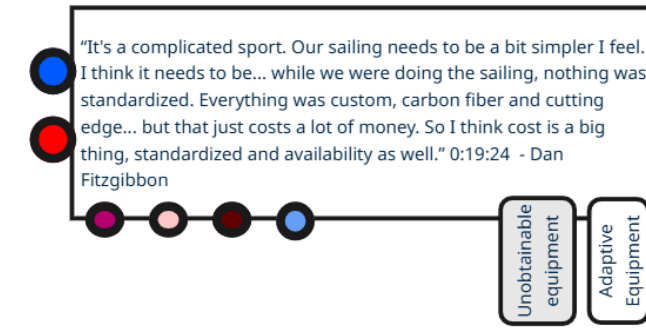
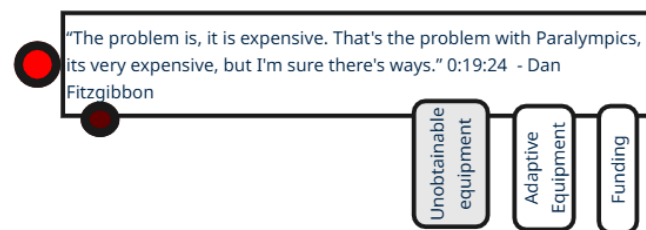
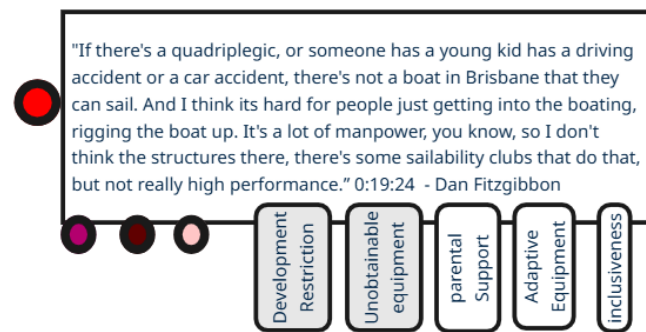
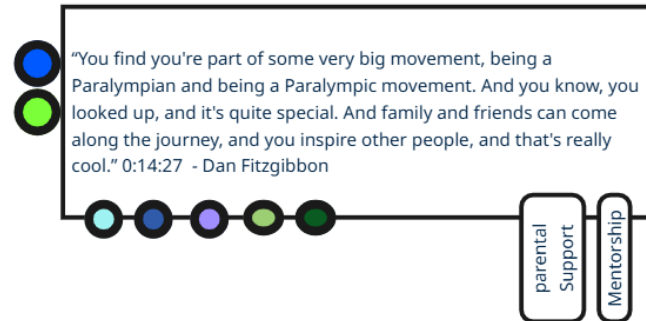
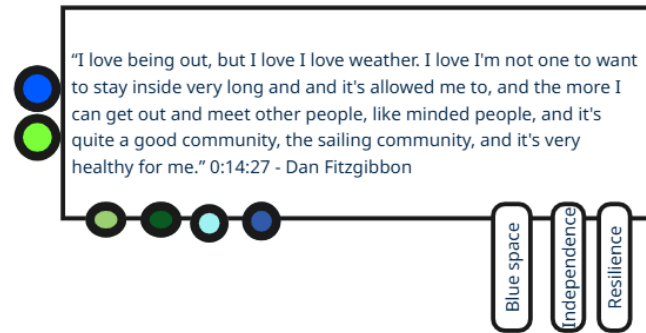
Problems

- Development Restriction
- Unobtainable equipment

Danny Fuller interview analysis



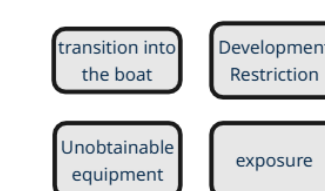
Dan Fitzgibbon Interview analysis



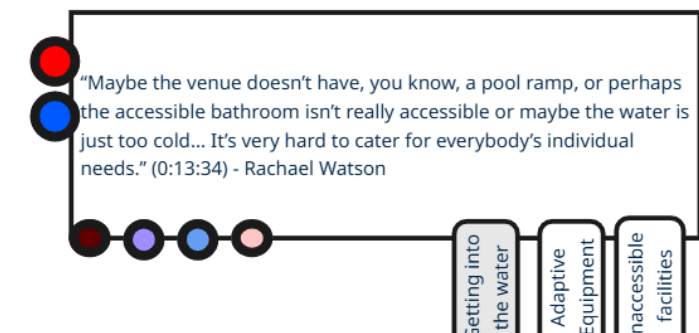
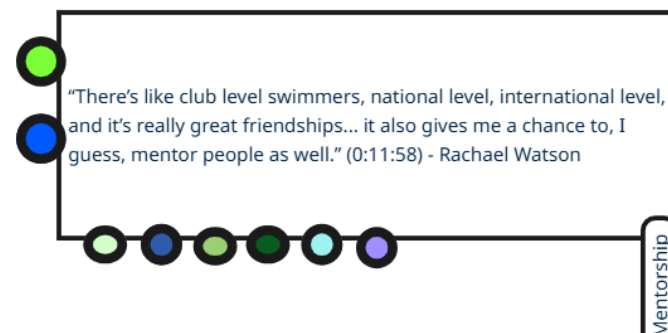
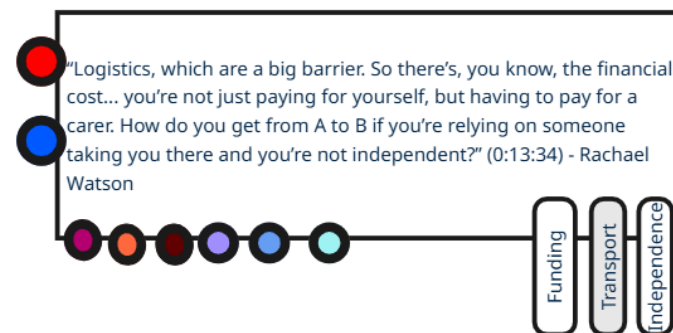
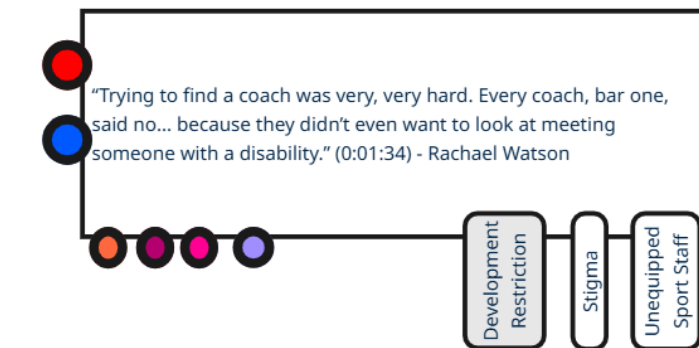
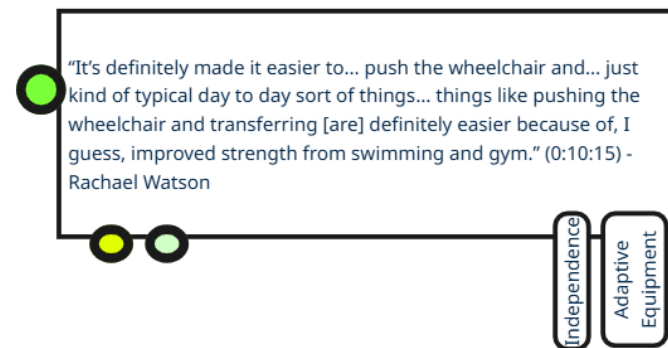
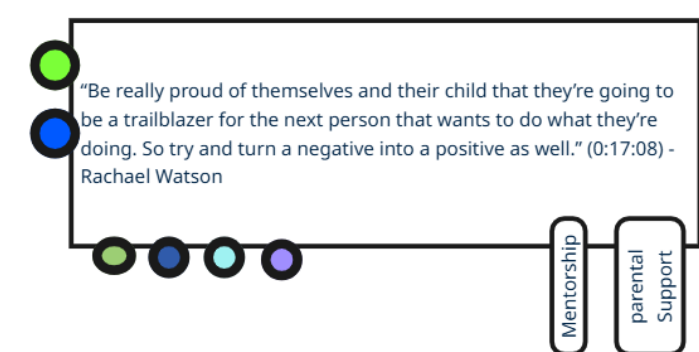
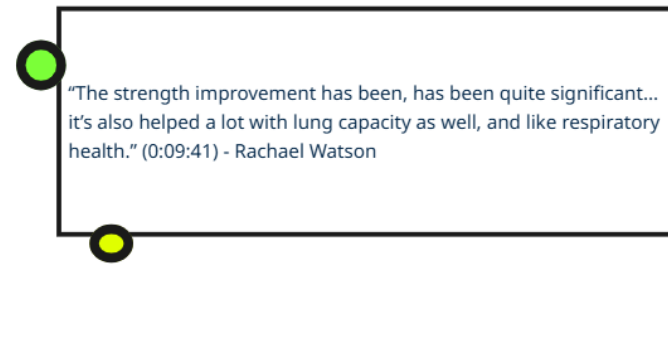
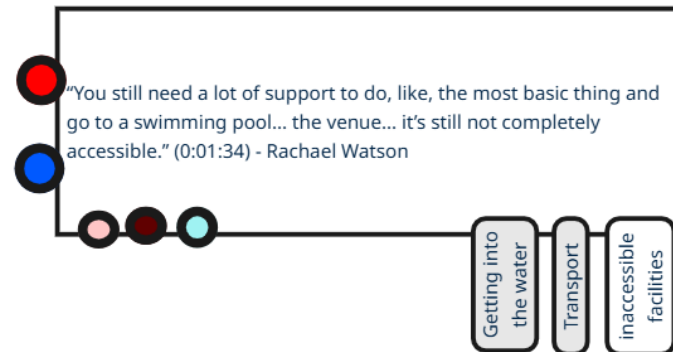
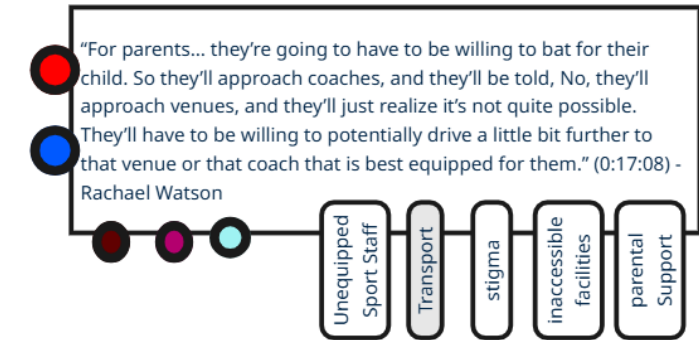
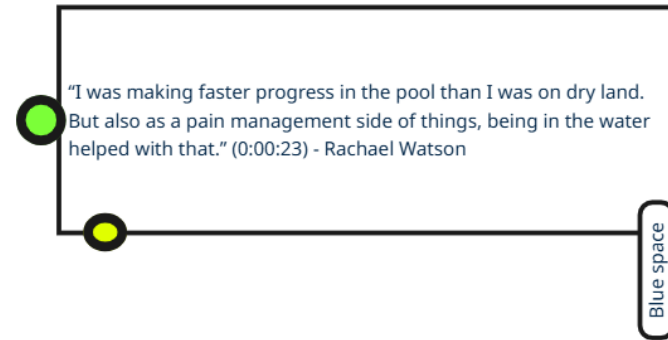
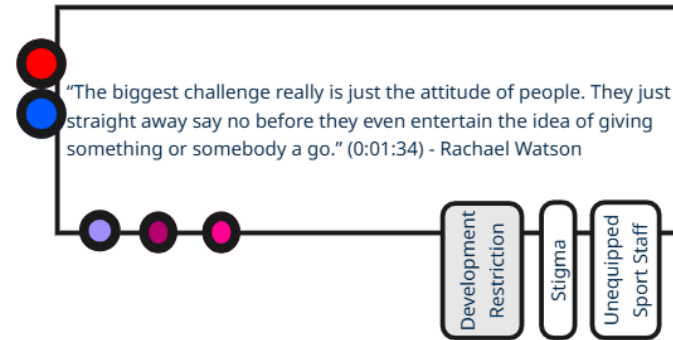
Tags



Problems



Rachael Watson Interview analysis



- Perceived Benifits**
- Physical Benefits
 - Psychological and Emotional Benefits
 - Social Benefits
 - Skill Development and Personal Growth

- Barriers**
- Physical and Structural Barriers
 - Social and Psychological Barriers
 - Economic and Logistical Barriers
 - Systemic Barriers
 - Educational Barriers

- Facilitating Factors**
- Role of Support Networks
 - Adaptive Strategies
 - Motivation and Mindset
 - Advocacy and Awareness

Tags

inaccessible facilities	x 3	Unequipped Sport Staff	x 4	Mentorship	x 2
Transport	x 3	Adaptive Equipment	x 2	stigma	x 4
parental Support	x 3	Independence	x 2	Blue space	x 1
				Funding	x 1

Problems

transition into the water	Development Restriction
Unobtainable equipment	Transport