EQUIBEING FOUNDATION

A COMPREHENSIVE GUIDE TO TRAIN PEOPLE WITH VISUAL IMPAIRMENTS IN SWIMMING

This guide celebrates inclusion through water, empowering trainers to create safe, supportive, and skill-based swimming environments for persons with visual impairments. Developed through hands-on experience and field-tested approaches, it brings together the science, spirit, and sensitivity of inclusive instruction.

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A Comprehensive Guide to Train People with Visual Impairments in Swimming

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ABOUT THE MANUAL

People with visual impairments often face exclusion from sports and physical activities due to a variety of reasons, including social stigma, stereotypes about their capabilities, and the lack of accessible infrastructure in sporting facilities. This exclusion is even more pronounced in the context of swimming and water sports, which are often perceived as challenging or unsafe for individuals with visual disabilities. However, swimming is not just a recreational activity—it is an essential life-saving skill, a powerful tool for physical and mental well-being, and a platform for empowerment and social inclusion.

Swimming offers numerous benefits. It is an excellent form of physical activity that improves cardiovascular health, builds strength, enhances coordination, and promotes overall fitness. Beyond its physical benefits, swimming also fosters mental well-being by reducing stress, boosting confidence, and providing a sense of independence. For individuals with visual impairment, swimming can be a transformative experience, offering them a unique opportunity to express themselves, challenge societal stereotypes, and break down barriers that limit their potential.

Moreover, swimming can play a significant role in improving social inclusion. By participating in swimming programs, they can connect with others, build relationships, and demonstrate their abilities, thereby challenging misconceptions about their limitations. Swimming empowers them to step out of the shadows of exclusion and actively engage in a sport that is both life-saving and life-enhancing.

Despite these immense benefits, the barriers to accessing swimming remain significant for them. Social stigma, lack of awareness, and inadequate infrastructure often prevent them from learning this critical skill. This is where the EquiFloat initiative steps in. EquiFloat, a flagship program of the EquiBeing Foundation, is dedicated to bridging this gap by providing swimming training for individuals with visual impairment and creating an enabling ecosystem for adaptive swimming. Through its innovative programs, EquiFloat not only teaches swimming as a survival skill but also empowers these individuals with blindness to thrive in both survival and competitive swimming.

A key component of this initiative is the Train-the-Trainer program, which equips swimming coaches with the skills and knowledge to teach adaptive swimming effectively. By training coaches, EquiFloat is building a sustainable ecosystem that ensures accessibility, inclusivity, and empowerment for the blind community. This program is a critical step in creating a supportive environment where blind individuals can learn, grow, and excel in swimming.

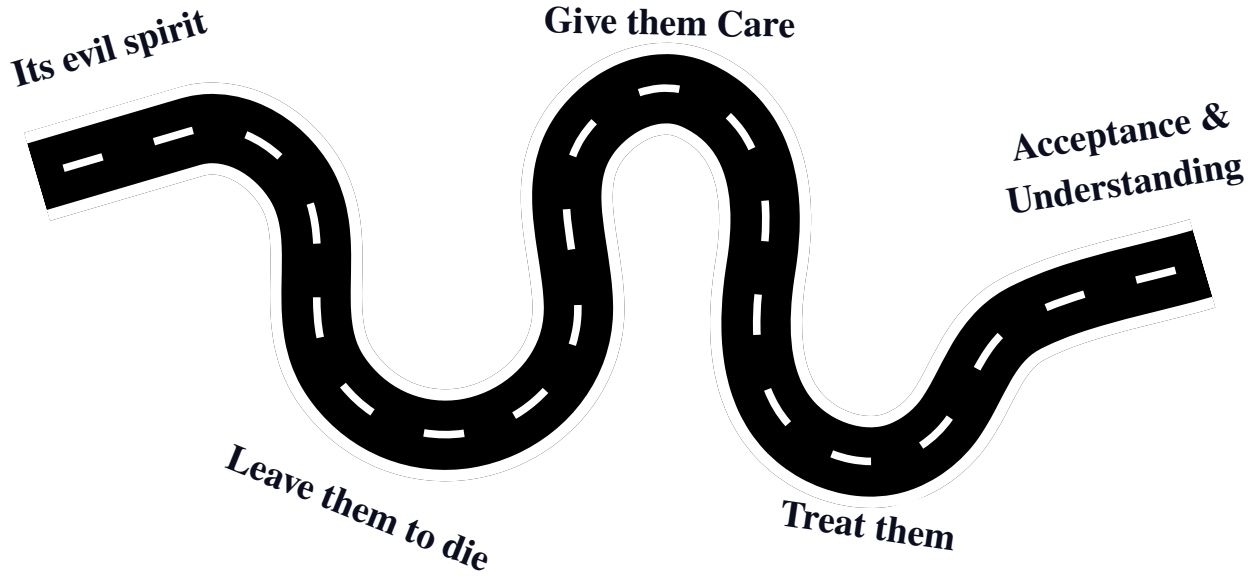
As a swimming trainer working with EquiFloat, you are more than an instructor—you are a catalyst for change. Your role goes beyond teaching swimming techniques; you are empowering individuals with visual impairment to overcome barriers, challenge stereotypes, and achieve their full potential. You are an active change-maker and enabler, playing a pivotal role in transforming lives and fostering a more inclusive society.

This training manual is designed to guide you in this transformative journey, equipping you with the tools and knowledge to make a lasting impact on the lives of individuals with visual impairments and the community at large. Together, we can create a world where swimming is not just a skill but a pathway to inclusion, independence, and empowerment for all.

PROLOGUE: THE CORE MINDSET ON DISABILITY

"Persons with Disabilities include those who have long term physical, mental, sensory or intellectual impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others"

Disability is a condition of the body or the brain which creates hindrances to their full and effective participation in the society, which is not equipped to accommodate people with differing needs. The condition can be congenital or acquired, which means a person can be disabled by birth or may have acquired it in some part of their life due to an accident, stress or many other factors. The journey of Persons with Disabilities from past to the present is a story of courage, spirit, fight against exclusion and a lot more. **Over the years, what changed the most is society's perception towards the disabled community. From considering as evil spirits to demand for the Equal rights and participation in the society, the change in the perception was not changed in a day.**



PART 1:
THE FOUNDATION ON VISUAL IMPAIRMENT AND SWIMMING

CHAPTER 1: THE SPECTRUM OF VISION IMPAIRMENT [1]

Referring to the UNCRPD definition on Disability, Visual Impairment is understood as a sensory impairment that affects sight, which could range from low vision to complete blindness, which in interaction with various barriers may hinder active participation on equal basis with others. This means that People with Visual Impairments faces hindrances in effective participation in Education, Employment, Sports and other social activities.

1.1 Blindness & Categories

Blindness is a significant or complete vision loss that affects daily functioning and independence.

- **Partial Blindness or Low vision**: It refers to limited vision that cannot be corrected with glasses or lenses. Individuals may experience blurred vision or difficulty seeing details, colors, or contrasts, depending on the severity. People with Low vision are categorized into two:
  - People who have the most visual function among People with Visual Impairments and could read some large texts, perceive more details and recognize objects more easily than others with Visual Impairments, but still face difficulties in performing daily life activities.
  - People who have some residual vision which could enable them to recognize motion or shapes to a very limited extend. They face difficulty in obtain or discern details through sight.
- **Complete Blindness**: A condition where the individual has no vision. People with complete blindness may or may not have light perception, which means the ability to recognize the presence or absence of light, without being able to recognize objects, shapes, colors or any other details.

1.2 Reasons for Blindness

Blindness can result from various causes,including genetic conditions, injuries, diseases, and infections. Each of these factors affect the delicatestructures of the eye differently, leading to temporary or permanent vision loss. The most common causes include genetic conditions like Retinitis Pigmentosa, or diseases like cataract, glaucoma, diabetic retinopathy, or infections or injuries. Below is a pictorial representation of some of these varied vision conditions:

[1] Vision Impairment and Visual Impairment are the same, both words are used interchangeably in the chapter and conveys the same idea/condition

Figure 1: A pictorial representation of sight of a person with conditions like cataract, where there is only blurred images

Figure 2: A pictorial representation of sight of a person with conditions like Retinitis Pigmentosa, where there is only central vision and no peripheral vision

Figure 3: A pictorial representation of sight of a person with conditions like Glaucoma, where there is only peripheral vision and no central vision [2]

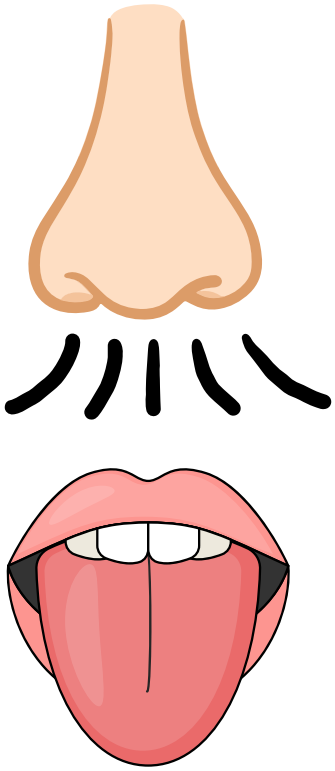
1.3 Multi-sensory Adaptations

People with Visual Impairments depends on other senses for their daily life activities, which includes hearing, smell, taste and touch.

- **Hearing** becomes especially important, allowing individuals to detect subtlesounds that help them interpret their environment. For example, swimmers may rely on the sound of splashes,whistles, or verbal cues from coaches to orient themselves during training or competitions.
- **Touch** plays a crucial role in providing information through tactile feedback. Touch helps individuals with visual impairment to feel and understand the environment and objects. It also enables them to read Braille and identify objects or textures with remarkable precision. During swimming, swimmers may rely on tactile coaching to understand the hand, leg or head positioning.

[2] Pictures provided are AI generated images for representative purpose only, and need not be accurate

- **Smell** significantly enables people with visual impairments in their daily lives by helping them recognize and navigate their environment. When combined with other senses like hearing and touch, smell provides critical cues, such as identifying a medical shop by the smell of medicines or a hotel by the aroma of food while walking on the road. This sensory integration enhances their independence and safety in everyday activities.
- **Taste** also plays a supportive, though sometimes less prominent, role in how individuals with visual impairments interact with and understand their environment. While taste primarily provides information about food and drink, it can contribute to sensory awareness and safety. Taste, combined with other senses such as smell and touch, enriches the overall sensory experience, aiding in the identification of surroundings and personal care.



These multi-sensory adaptations enable individuals with visual impairments to thrive in various aspects of life, including swimming. With proper coaching and tailored support, they can excel in sports and other activities including swimming, demonstrating that limitations in vision do not define their potential or achievements.

People with Vision Impairments DO NOT HAVE HEIGHTENED OTHER SENSES. They rely more on other senses as they have low dependency on vision. It is a natural adaptation for any person having Vision Impairment or having only Vision Impairment.

1.4 Aids and Adaptive devices

People with Visual Impairments rely on several adaptive devices or aids that support in their daily life activities. **Aids** are instruments specifically designed to assist People with Visual Impairments in their daily life to perform day to day activities. **Adaptive devices** are devices or equipment already available in the society being remade to address the needs of People with Visual Impairments.

A few of the devices or aids that are commonly used in daily life and in swimming are mentioned below:

Used for independent living

- **White Cane**: White Cane is an assistive device that helps in independent mobility. The cane held in the hands, are put a step in front of the person to help identify objects or obstructions in front of their path. Different types of white canes are available.
- **Tactile Floor**: Tactile Floor is a textured ground surface indicator designed on the footpath, platforms or other surfaces, typically felt through feet or a white cane, assisting People with Visual Impairments to navigate independently. It includes two different forms: raised bars, to indicate the direction and raised domes (circles), indicating to Stop as there is an end, or requires change in direction.
- **Beeper**: A Beeper is an electronic device that creates a beeping sound at regular intervals, helping people to navigate directions based on sound. Beeper is an equipment that can be used for swimming training as well, which when kept on a end will help swimmers to follow the same direction.

Used for swimming

- **Tapper**: is a device used to tap on the head or shoulder of the swimmers, to indicate them to flip or stop at the end of the pool. The International Blind swimmers would have the assistance of a Tapper to participate in events.

CHAPTER 2: CHALLENGES FACED BY SWIMMERS WITH VISUAL IMPAIRMENTS

Swimming presents a unique set of challenges to People with Visual Impairments, which coaches must understand to provide effective instruction and support. Blindness affects swimming in various ways, from difficulty maintaining direction in the water to the heightened risk of injury. This section explores the key challenges blind students face and offers examples to illustrate how these challenges manifest in practice, as well as strategies to address them.

2.1 Difficulty in Keeping Direction While Swimming

One of the primary difficulties is maintaining direction in the pool. Without the assistance of a lane marker, walls, or other visual cues, swimmers often struggle to swim in a straight line or stay within their designated lane. Even experienced swimmers who are blind might find themselves unintentionally veering to one side or drifting across multiple lanes.

Addressing the Challenge:

- **Tactile Feedback**: Coaches can teach students to lightly brush their hand or fingers along the lane line to maintain a sense of direction. This tactile feedback helps them stay centered without needing visual input.
- **Auditory Cues**: In some cases, the coach can stand at one end of the pool and provide sound cues (e.g., clapping or using a whistle) to guide the student toward a specific point. The swimmer can listen to the sound and adjust their strokes accordingly.
- **Reinforcing Spatial Awareness**: Regular practice in the same pool allows the student to become more familiar with the environment, helping them internalize the pool's dimensions and the feel of the water as they swim in a straight line.

2.2 Challenges in receiving Training to swim effectively

Another significant challenge is the process of receiving training. Unlike sighted students, who can watch demonstrations or follow visual corrections, blind swimmers rely heavily on verbal instructions and tactile feedback. This makes the learning process slower and more dependent on the coach's ability to clearly communicate each step.

Example: A coach is teaching a blind student how to perfect their breathing technique during the front crawl. The student has trouble timing their breaths, often forgetting to exhale underwater and gasping for air between strokes. The coach explains the technique multiple times, but without being able to see a demonstration, the student finds it difficult to grasp the rhythm of the movement. Even when the coach uses verbal cues, the student struggles to synchronize their breath with their strokes (M. P. M. e Silva et al., 2011).

Addressing the Challenge:

- **Descriptive Language**: Coaches must provide highly detailed descriptions of each movement, explaining not just what to do but how it should feel. For example, instead of saying, "Take a breath after every third stroke," the coach could say, "As you lift your head to the side, feel the cool air against your face and take a deep breath in. As your head returns to the water, feel your breath leaving your nose as you exhale."
- **Tactile Learning**: Coaches may use tactile feedback to guide the swimmer's body through the correct motions. For instance, the coach might physically guide the student's head to the side while explaining how and when to breathe, helping them feel the movement firsthand.
- **Patience and Repetition**: Blind swimmers may require more time and repetition to fully internalize techniques. A patient, supportive coach will repeat instructions and allow the student to practice at their own pace, offering encouragement and corrections along the way.

2.3 Heightened chances of Injury while Swimming

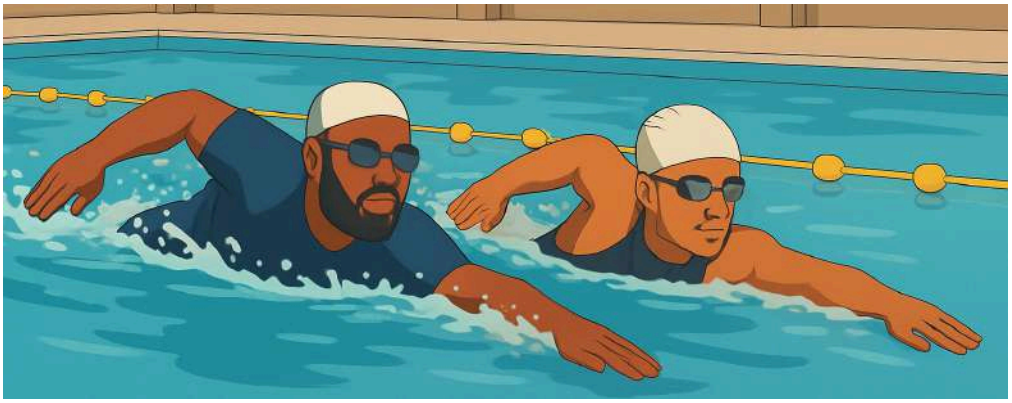
Swimmers with Visual Impairments face an increased risk of injury, particularly when swimming in unfamiliar environments or practicing new techniques. Without the ability to see obstacles, such as pool walls, lane dividers, or other swimmers, they are more likely to experience accidental collisions, scrapes, or bruises. Additionally, the lack of visual feedback can make it difficult to judge when they are approaching the end of the pool or turning too sharply during a stroke.

Example: During a swim session, a blind student approaches the end of the pool during a sprint. They're concentrating on their stroke and maintaining speed, but without a tapper or verbal cue, they don't realize they're just a few strokes away from the wall. Suddenly, they crash into the wall, hitting their head and becoming disoriented. It's a painful and frustrating experience that shakes their confidence in the water (M. M. e Silva et al., 2013).

Addressing the Challenge:

- **Use of Tappers**: Tappers are one of the most effective tools for preventing injuries. A coach or assistant uses a tapper (a long pole with a soft end) to gently tap the swimmer on the shoulder or head as they approach the wall, signaling them to stop or turn. This helps collisions.
- **Consistent Verbal Instructions**: Coaches should provide consistent auditory feedback when swimmers are nearing the end of the pool. Phrases like "Five strokes left," "Two strokes," or "Get ready to turn" help blind swimmers anticipate what's coming next and adjust their movements accordingly. The coaches also need to ensure that they are providing verbal instructions when the swimmer raises their head above the water surface.
- **Counting the Strokes**: Swimmers can be taught to count their strokes during practice. If they notice that they've exceeded their usual stroke count without a tap, they can anticipate the wall and prepare to stop or turn. This technique is simple but very effective in preventing collisions.
- **Buddy Swimming**: The Visually impaired swimmer can be assisted with a buddy swimmer in the water, who can swim along or behind the other and provide tactile feedbacks in the water using gentle taps to communicate direction change, turns or stop. Buddy swimming can be practiced in different forms with the buddy swimming side-by-side or behind or a particular distance in the front depending on the requirement and comfort. The signaling can be a gentle single tap to change direction, double tap to stop or turn. This meaning of the tap has to be communicated with the swimmer before starting the practice drill.
- **Safety-Oriented Drills**: Coaches can incorporate drills that emphasize spatial awareness and safe swimming practices. For instance, practicing turns at a slower pace or with extra verbal guidance allows the swimmer to build confidence and reduce the likelihood of injury. This would also help the swimmers to get trained with non-visual cues, like whistling, and to get used to them. These safety drills should also include practices to address any emergency situation that could occur in the pool, requiring swimmers to evacuate the space in urgency. This would build the confidence of swimmers with Visual Impairments and help them feel safe and secure.

Figure 4 [3] : Tapper



[3] The figure is a picture of a tapper developed by our (EquiBeing Foundation) Sports team using a long PVC pipe and a smiley ball at the end for our internal purposes. Used here for representative purpose only.

CHAPTER 3: ESSENTIAL COMPETENCIES TO BE AN ADAPTIVE SWIMMING COACH

To be a successful Adaptive swimming coach demands a few more competencies than what a regular or mainstream swimming coach requires. This includes more detailed understanding on their conditions. This chapter provides a detailed understanding on the competencies that a swimming coach should ensure in themselves before they start training a Person with Blindness. More or less of the information provided here can also be true in case of Persons with other disabilities as well.

3.1 Knowledge and understanding

- **Degree of Visual Impairments**: An adaptive swimming coach training a Person with Visual Impairment should be aware about the person's specific condition and requirements. Not all people with Visual Impairments share same needs and requirements. As we mentioned in the second chapter, the degree of Visual Impairment shall vary from person to person and so does their needs, requirements and method of training. For example, a person with complete blindness would always require verbal or tactile feedbacks while a person with low vision may or may not require that throughout. Some people may also have multiple disabilities, which means they have some other disabilities as well in addition to the Blindness. Their requirements also vary depending on the type of other disability/disabilities.

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- **Awareness on common challenges**: An adaptive swimming coach should be aware about the common challenges faced by People with Visual Impairments. As discussed in the previous chapter, there are few challenges that are common. An understanding about these would help the coach plan their training better.

- **Familiarity with Aids and Assistive Devices**: The coach should be familiar with the basic aids and technologies that the swimmer is using. Aids like white cane are used very commonly by People with complete blindness. Understanding such devices assisting in independent mobility would enhance the relationship between the coach and the swimmer.

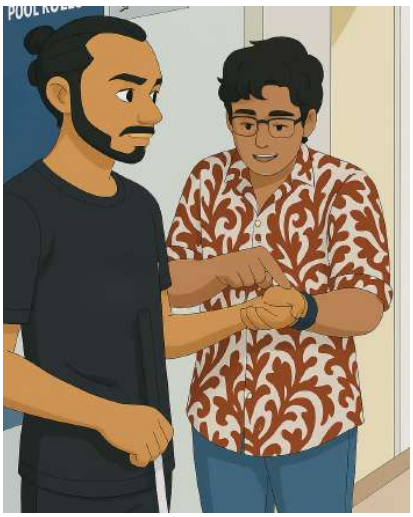
3.2 Effective Communication

- **Building Trust and confidence**: Most of the times, a person with visual impairment having exposure to water bodies would be very less compared to their peer groups, even more for girls/women. For a person who is dependent on vision, and no exposure to water would require more effort from the coach to build the trust and confidence in them. Swimming for the Blind being less common in our country, they could not have heard much about such experiences as well, making this process unavoidable.

Steps to Build Trust and Confidence

- **Introduce the self clearly**. In the first meeting and. Make the person understand clearly 'who you are', 'what you are'. Explaining them about your coaching plan and coaching style in the meeting would help them prepare themselves for the process. Also understand the same about the learner in front of you.

- **No unnecessary touch**. People with Visual Impairments rely largely on touch based inputs but that does not mean no boundaries in physical touch. Be clear about when they need tactile feedback or information. Let them touch and explore, than touching them. Offer your elbows to hold on to, if require assistance in moving.
- **Stick to the routine**. This would help them plan their day. Contrary to the people who depends on vision, they may require more time to prepare themselves to be ready for coaching. Sudden changes or immediate calls to the class might decrease their self confidence and would impact their learning.



- **Descriptive Spatial Orientation**: People with Visual Impairment, when coming to a new place, should be provided with a spatial orientation. This could include the things with its position, people around, measure of the space and shape. This could be provided either verbally or by drawing the space on their hands, with consent.
- **Precise and clear verbal communicatio**n: The communication should be very clear and precise. Use non-ego centric direction to guide people in and out of the swimming pool, which means the ‘left’ and ‘right’ should be the other person’s left and right.

Figure 5: Illustration for understanding non-egocentric direction. Always provide the direction of the swimmer moving towards you from the opposite direction Eg: “Move towards your LEFT, you are approaching the side walls”

PART 2:
HISTORY & EVOLUTION OF SWIMMING FOR PEOPLE WITH VISUAL IMPAIRMENTS

CHAPTER 4: A BRIEF HISTORY OF SWIMMING FOR PEOPLE WITH VISUAL IMPAIRMENTS

Swimming has long been recognized as an essential physical activity for individuals with disabilities, providing a platform for health, competition, and personal empowerment. For athletes with visual impairments, swimming offers not only a form of physical exercise but also a way to challenge perceptions about disability and push the boundaries of their abilities. Over the years, swimming has developed into a highly competitive and celebrated Paralympic sport, showcasing the resilience, skill, and determination of athletes with visual impairments.

4.1 The origin of Adaptive Swimming

Adaptive swimming was started as a rehabilitation process for the injured veterans of the World war. The 'Stock Mandeville Games' conducted in 1948, which was for the war veterans with spinal cord injuries, was the predecessor of Paralympics. The introduction of the Mandeville Games developed the scope of Rehabilitation of People with Disabilities through sports. This developed into a competitive platform that grew into the Paralympic games as we see today, with athletes from the broader disability groups coming in and performing and competing against each other.

Dr. Ludwig Guttmann, was a Jewish neurologist from Germany, who fled the country during the Nazi rule. He settled in Britain and continued his efforts in neurosurgery and treating the war veterans. He paved the way for Sports Rehabilitation for People with Disabilities by organizing the Stock Mandeville Games, as part of his sport rehabilitation therapy for the injured military personals from the war, helping them regain their physical strength and self-respect.

Figure 6: Dr. Ludwig Guttmann

The philosophy of Mandeville games influenced adaptive sports broadly including the evolution of swimming for People with Visual Impairments. The swimming for athletes with visual impairments was introduced in 1976 Toronto Paralympics, marking the beginning for competitive swimming events for people with visual impairments. This also saw the incorporation of adaptive methods like 'Tapping' to aid the swimmers with visual impairment to guide them to stop or turn.

The Sport evolved under the **International Paralympic Committee (IPC)** and its divisions all over. With the introduction of classification system and competitive rules, swimming is one of the globally engaged Paralympic Sport for People with Visual Impairments.

4.2 Classification of swimmers

As discussed in chapter 2, persons with visual impairments fall into three categories. One are people experiencing complete blindness, others are people with some residual vision and people with most visual function. Based on the severity of blindness, the swimmers are classified into three categories: S11, S12 and S13.

The classification is applicable to all athletes with disability. A total of 14 categories of swimmers participate in the competitions, with categories from 1-10 are reserved for athletes with physical disabilities depending on the functional mobility, 11-13 reserved for athletes with Visual Impairments depending on the visual functioning and 14 for athletes with Intellectual disability. In swimming alone, these classifications differs from S1-S14 to SB1-SB14 & SM1-SM14.

S1-S14 are swimmers participating in **Freestyle, Butterfly or Backstroke events**
SB1-SB14 are swimmers participating in **Breaststroke event**
SM1-SM14 are swimmers participating in **Individual Medley event**

As discussed, S11-S13 are the categories of Swimmers with Visual Impairment.
S11: Athletes who are completely blind or have very limited light perception.
S12: Athletes having severe visual impairment but with some residual vision.
S13: Athletes with moderate visual impairment, but with the most visual function than the other two categories.

The classification of swimmers ensures a fair and equal level playing field for competitors, by reducing the impact of their impairments in the competition outcome. The swimmers undergo physical, technical and in-competition assessments by recognized medical professionals and technical experts. The functional ability, muscle power and coordination abilities are all assessed for classification, and is governed under the International Paralympic Committee.

4.3 Key Adaptations [1]

- **Use of Tappers**: To guide swimmers to stop or turn, as discussed before. Mainly used by S11 swimmers and some S12 swimmers
- **Black-out goggles**: S11 swimmers are required to wear black-out goggles to avoid the advantages of light perception for some. This ensures fairness and prevents any potential advantages.
- **Accessible Facilitie**s: Swimming pools hosting Paralympic events are equipped with accessible features, including tactile surfaces, anti-slip flooring, and handrails. These adaptations ensure that athletes can safely navigate the pool deck and maintain independence during training and competition.

[5]

[5] Pictures are used for illustrative purpose only, and need not be accurate

CHAPTER 5: ACHIEVEMENTS AND MILESTONES IN SWIMMING FOR PEOPLE WITH VISUAL IMPAIRMENTS

Swimming for the blind has produced some of the most inspiring moments in Paralympic history. Athletes have broken world records, won multiple gold medals, and become role models for the next generation of blind swimmers. The sport has not only highlighted the capabilities of athletes with visual impairments but has also raised awareness about the importance of inclusion in sports.

5.1 Notable Para Swimmers of India

Kanchanmala Pande: She is a distinguished Indian para-swimmer who made history by becoming the first Indian to win a gold medal at the 2017 World Para Swimming Championships in Mexico. Competing in the S11 category, she achieved her milestone victory in the 200m medley event. Kanchanmala's journey to this level of success was filled with challenges, including financial difficulties, which were particularly evident during her Berlin qualifiers. Despite these obstacles, her grit and determination enabled her to rise as one of India's most successful para-swimmers.

Currently, Kanchanmala is an active advocate for better support and infrastructure for para-athletes in India. She continues to participate in swimming competitions while also promoting the cause of athletes with visual impairment She has voiced the need for increased financial backing, proper training facilities, and recognition for athletes with disabilities, striving to create a more supportive environment for future para-sports talent (Kanchanmala Pande - Swimming | Paralympic Athlete Profile, n.d.; “Nagpur’s Kanchanmala Becomes First Indian to Win Gold at World Para Swimming Championship,” 2017; Republic World, 2018).

Career Highlights:

- First athlete with Visual Impairment to represent India in Paralympic swimming.
- First Indian to win Gold medal at the World Para Swimming Championship in 2017 in Mexico.
- Current National Record holder in S11 50m women’s Freestyle swimming with a timing of 40.16 seconds

Himanshu Nandal: He is a 21-year-old para swimmer from Rohtak, Haryana, who began his professional swimming journey in 2021 and quickly rose to prominence as one of India's most promising visually impaired athletes. Born blind due to optic nerve failure, Himanshu originally trained as a judo player but faced challenges since para judo lacked recognition in university sports quotas. Inspired by his sporting family—his father, a former national hockey player, and his uncle, a Commonwealth judo competitor—he transitioned to swimming. Currently training under his coach Ranbir Sharma, who was initially unfamiliar with para-athlete training, the pair developed adaptive techniques using tactile guidance and tappers, which helped Himanshu master his strokes with precision.

Through perseverance and innovative coaching, Himanshu rapidly excelled, winning two gold medals and setting national records at his first National Para Swimming Championship in Udaipur in 2022. His success continued with three gold medals and records at the 2022 Guwahati Nationals, followed by international appearances in the Citi World Para Series (Singapore) and the Asian Para Games (Hangzhou). In 2024, he again dominated the national championship in Gwalior and became the first blind swimmer and second Indian para athlete to meet the qualification standards for multiple events at the Paris 2024 Paralympics. Himanshu also participated in the World para swimming championship in Singapore 2025 and is also holding a position among the top 8 in the World rankings.

Career Highlights:

- Himanshu holds National records in multiple events in Men's S11 category swimming (50m & 400m Freestyle, 100m in breast, back and butterfly strokes and 200m Individual Medley)
- Represented India in the World Para swimming Championship in Singapore 2025
- Ranked in the top 8 Para swimmers of the world

Swimming for People with Visual Impairments remain as one of the most popular and competitive sports in the Paralympic Games. The continued advancements in training methods, technology, and infrastructure mean that more blind athletes than ever before are being given the opportunity to swim competitively, from grassroots levels to elite international competitions. As we look toward to the future, there is growing interest in further improving access to swimming for Individuals with Visual Impairments. Initiatives like adaptive swimming programs, government support, and specialized coaching training have opened doors for more athletes to explore the sport, both recreationally and competitively. The goal is to make swimming accessible to blind individuals in all parts of the world, allowing them to experience the joy, freedom, and empowerment that comes with mastering the water.

PART 3:
ADAPTATIONS IN SWIMMING FOR PEOPLE WITH VISUAL IMPAIRMENTS

CHAPTER 6: ADAPTATIONS IN SWIMMING

Teaching swimming to blind students involves a series of thoughtful adaptations and specialized techniques to ensure a safe, productive, and enjoyable experience. Swimming for people with visual impairments is not fundamentally different from swimming for sighted individuals in terms of technique, but there are critical adaptations that make the learning process accessible and comfortable. These adaptations involve modifying teaching approaches, utilizing specialized equipment, and ensuring that the environment is supportive and safe.

6.1 Key Adaptations in Methods used

Adaptations in blind swimming are designed to address the specific challenges that arise from the lack of visual cues. Swimming methods adopted in training a blind swimmer should be specific to the requirement of the learner. The challenges owing to the lack of visual learning may increase the time and effort required to teach. The coach should be patient enough to learn and adapt to the needs of the learner. The common Methodological adaptations in Swimming for a learner who is visually impaired includes:

- **Controlled Environment**: Ensuring the pool environment is calm and quiet allows individuals with visual impairments to focus on the auditory cues, tactile feedbacks and their own movements without distractions. The auditory cues being the most important for a blind swimmer, avoiding distractive noises becomes crucial for effective learning.
- **Consistent Spatial Awareness Training**: Teaching blind swimmers how to use lane lines, pool walls, and water flow to maintain their direction and position is critical. This includes exercises that focus on recognizing spatial changes through touch and sound.
- **Repetition and Muscle Memory**: Repeated practice helps build muscle memory. Repeating strokes, kicks, and breathing techniques consistently helps the swimmer internalize the movements.

Apart from these, tapping, detailed verbal instruction, stroke counting and buddy swimming are also the adaptations to teach swimming to an individual with visual impairment.

Example of Adaptation:
"When teaching a front crawl, rather than demonstrating the motion visually, the coach can verbally explain each part of the stroke, describing how the hands, arms, and legs should move. They may also guide the student's hand through the movement to help them feel the correct technique."

Figure 7: Tactile learning

Figure 8: Provide egocentric verbal directions, from a close distance. Lean forward to ensure effective communication.

Figure 9: Ensure that the instructions are clearly conveyed, by staying close to the swimmer

Figure 10: Swimmers should be guided down the pool through stairs, explaining to them the number of steps and the showing the position of rails.

6.2 Key Adaptations in Equipment used

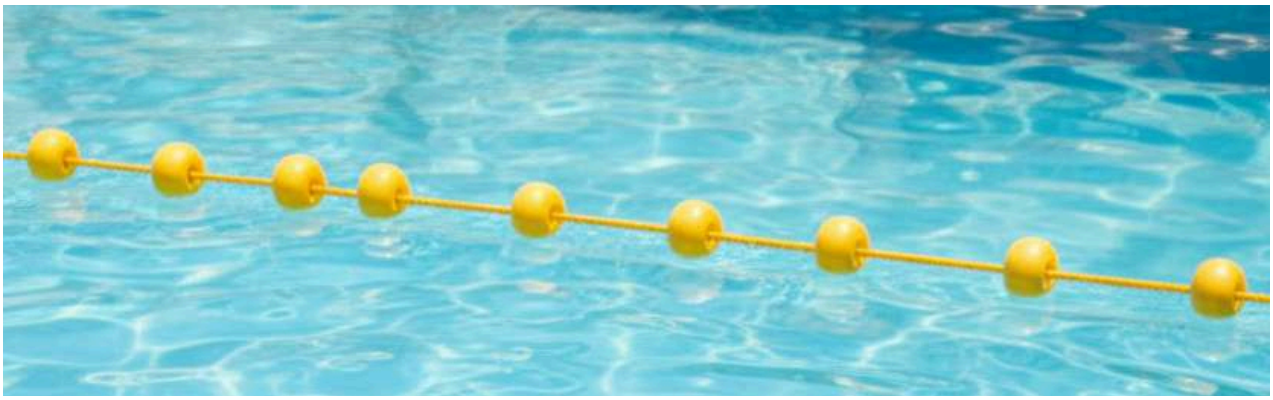
Certain pieces of equipment are essential for enhancing safety and providing feedback to blind swimmers in the water. These tools help swimmers navigate the pool, improve their technique, and avoid injury.

- **Tapper**: As mentioned, tappers are long poles with soft ends
- **Lane Lines**: Lane lines may have textured ropes that blind swimmers can use to gauge their position in the pool. Feeling the lane lines with their hands or feet helps swimmers stay within their lane and adjust their direction if they begin to drift.
- **Black-out Goggles**: In competitive settings, blackout goggles are used to ensure a level playing field for S11 category swimmers. These goggles block out all light, putting every swimmer on equal footing. Swimmers preparing for competitions can be recommended to practice with the black-out goggles itself, to get used to and avoid any possible advantages of light perception.
- **Snorkel**: Snorkels help swimmers focus on specific training points without worrying about breathing. They improve neck coordination, reduce unnecessary neck movement that can strain the shoulders, and help swimmers maintain a better streamline. This also helps in building the confidence of the beginner level swimmers

Figure 11: Guide preparing the tapper for use

Figure 12: Demonstration of a snorkel

- It is always recommended to **use lane lines with no rough or sharp edged objects.**



- Since lane lines help in the training process as well, injuries due to damaged lane lines can bring down the swimmer's confidence.
- It is also recommended to **use lane lines with contrasting colours like red or yellow.** Multi coloured lanes with one colour representing the approach of pool end could help Swimmers with low vision.

Recommended Colour Combinations:
Red – White
Yellow – Blue
Green – White
Red – Yellow
Blue – White

- The same with kickboards as well. **Use of kickboards with contrasting colours would help swimmers with low vision** regain the board after losing it in the water.

6.3 Key Infrastructural Adaptations

To ensure the safety and accessibility of swimming facilities for blind students, it's essential to make thoughtful modifications to the pool's infrastructure. These changes will not only help prevent accidents but also foster greater independence for blind swimmers.

Tactile Surface Modifications: Rubber Adhesives for Pool side Navigation

One of the most critical changes for improving accessibility around a swimming pool is creating tactile cues that guide individuals with visual impairments as they move around the pool. These cues help swimmers orient themselves and navigate the space independently.

- **Rubber Adhesive Strips or Tiles**: Installing textured rubber adhesive strips or tiles along the perimeter of the pool can provide tactile feedback underfoot, helping blind swimmers distinguish between the safe walking areas and the pool edge. The raised surface of the rubber material allows students to feel the difference with their feet, alerting them when they are approaching the water's edge.

- **Tactile Warning Strips at Key Points**: In addition to continuous tactile pathways, tactile warning strips can be placed at key locations—such as entrances to the pool, near stairs, and around the diving board area—to signal potential hazards or changes in elevation. These strips should be clearly distinct from the regular tactile pathways, offering a different texture that alerts swimmers to stop or proceed with caution.
- **Contrasting Colours for Swimmers with Low vision**: For swimmers with residual vision, using high-contrast colours (such as bright yellow) on tactile strips and tiles can improve visibility and provide an additional cue to enhance their spatial awareness around the pool.

Anti-Slip Solutions for Safety

Slippery surfaces pose a significant hazard to all swimmers, but especially to blind swimmers, who may not always be aware of wet patches or uneven surfaces. Preventing slips and falls requiresa combination of anti-slip materials and adaptive techniques that help blind students feel secure on their feet.

- **Non-Slip Pool Deck Coating**: Applying an anti-slip coating to the pool deck is one of the most effective ways to reduce the risk of slips and falls. These coatings provide a textured surface that enhances grip underfoot, even when wet, helping to prevent dangerous slips.
- **Anti-Slip Mats**: Placing anti-slip mats in high-traffic areas (such as the entrance to the pool, the locker room, and the shower area) adds an extra layer of protection. These mats are designed to drain water quickly while providing a slip-resistant surface, ensuring that swimmers can move safely even in wet areas.
- **Textured Pool Steps**: Pool steps should have a non-slip surface as well. Applying anti-slip strips to the steps ensures that swimmers entering or exiting the pool have firm footing, even when the steps are submerged.

Poolside Safety Railings and Handrails

For additional safety, handrails can be installed around the pool's perimeter to give blind students something to hold onto as they walk. These railings provide an additional point of contact, helping students maintain balance and spatial awareness as they move around the deck.

- **Handrails at Strategic Locations**: Install handrails along the perimeter of the pool, particularly near entrances, stairs, and changing areas. These railings should be easy to grip and placed at a comfortable height for swimmers of varying ages and heights. Example: As a blind swimmer approaches the pool, they place their hand on the rail to guide themselves along the edge of the pool. This tactile feedback provides reassurance as they navigate to the starting point for their swim session.
- **Textured Handrails**: Textured or rubberized handrails can offer additional grip, ensuring that blind swimmers can hold onto the rail securely, even when their hands are wet.

CHAPTER 7: COMPREHENSIVE ORIENTATION TO THE SWIMMING POOL

Before beginning any swimming lessons, it is essential to familiarize the swimmers with their surroundings. They need to have a mental map of the pool area and an understanding of the equipment used.

7.1 Pool Orientation

Persons with Visual Impairments need to develop a sense of understanding on where they are with in the pool and its surrounding environment. This orientation process helps them feel more secure and prepared to navigate the space independently thereafter.

- **Describe the Pool Layout**: Provide a detailed verbal description of the pool, including its length, width, depth at different points, and the location of pool ladders, edges, and starting points. If the person requires, a map of the pool can be drawn with your fingers on their hands, which would help them understand complex shapes or helps to develop a mental map of the pool.
    - *Example: "The pool is 20 meter long in length, that is, around 50 steps approximately."*
- **Guide Them to Important Landmarks**: Walk the person around the pool, allowing them to touch the pool's edge, ladders, and starting blocks. Explain how they will use these landmarks for orientation during swimming practice.
    - *Example: "This is the shower area, from here, if you go to the left about 5 meters, that is 20 steps, you will reach the swimming pool."*

- **Explain Pool Safety**: Teach the person about pool safety measures, such as avoiding the pool's deep end if they're not comfortable yet, and how to recognize safe areas by touch (e.g., the pool's shallow end or the pool ladder).
    - *Example: "When you're at the shallow end of the pool, you'll notice that the water is much lower, and you can stand. As you move toward the deep end, you'll feel the slope under your feet gradually increasing. When you reach the pool ladder, you'll feel the rungs with your hands, which will help you climb in or out."*

Figure 13: Offer your elbows to hold for the person and walk in front, while explaining the surrounding area

Figure 14: Walk behind the person, allowing them to explore the area using their white cane. Provide instructions, explanations or descriptions whenever necessary.

Figure 15 A

Figure 15 B

Figure 15 (A&B): Also allow the person to measure the depth of the pool from the land before entering the water.

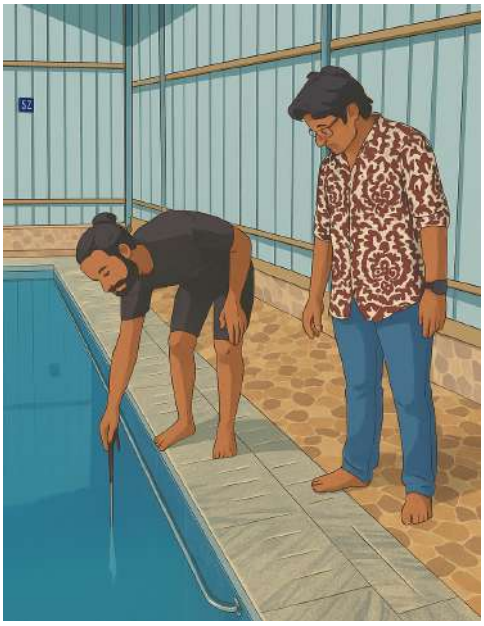


Figure 16: Allow the person to understand the distance between the pool and the side wall with the white cane

CHAPTER 8: THE LANGUAGE OF COACHING: VERBAL PRECISION AND CLARITY

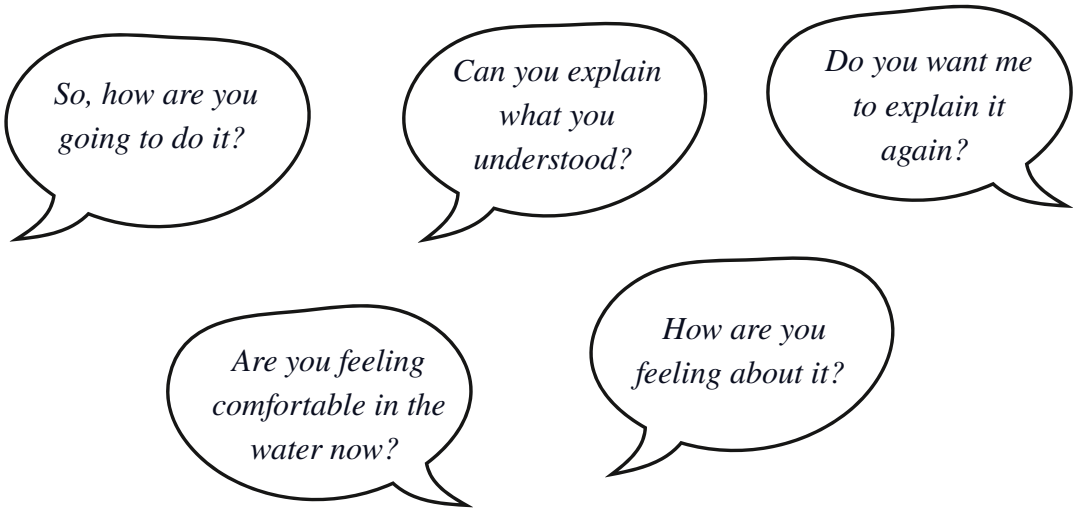
When working with swimmers with blindness, language becomes a primary tool for instruction, communication, and motivation. Trainers must learn to use precise and empathetic language while being mindful of the limitations and adaptations that come with teaching blind swimmers.
Effective communication, including the importance of verbal communication, the use of empathetic language, and ensuring that clarity and understanding are to be prioritized.

8.1 Emphasis on Verbal Communication over Assumptions

Blind swimmers cannot rely on visual cues such as facial expressions or body language to interpret instructions or emotions. This makes it critical to use clear, direct verbal communication. Making assumptions about what the person knows, feels, or understands can lead to miscommunication, frustration, and hindered progress.

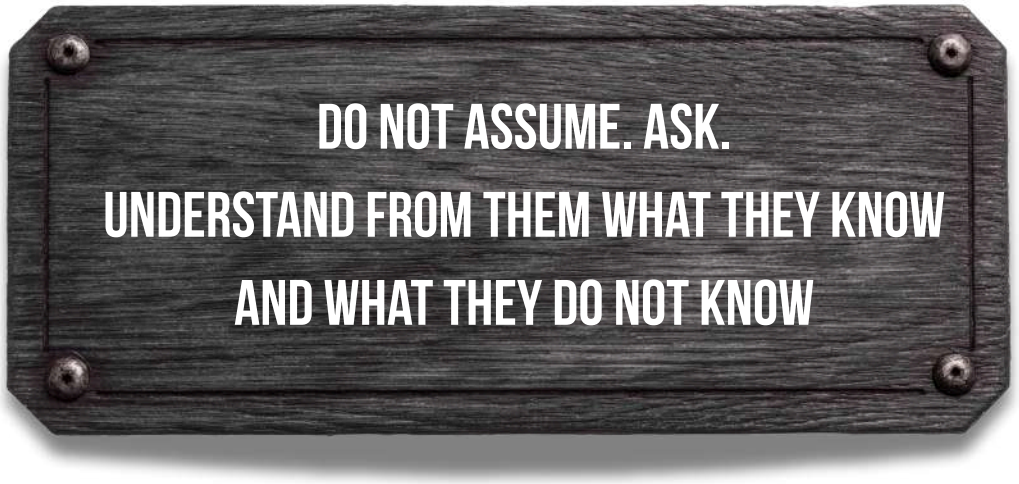
- **Avoid Vague Instructions**: Statements like *"Do it like this"* or *"Look over here"* are ineffective. Always provide specific, step-by-step verbal instructions, describing every action or movement in detail. Instructions like: *"Move your arms towards your left", "Lift your arms above your head", "Lift your arms in a 90 degree position"* would be helpful for the person to understand.
- **Describe the Environment**: Blind swimmers cannot observe their surroundings, so it is vital to explain the spatial layout, the position of equipment, and even the sensations they may experience, such as the water's temperature or the pool's depth at different sections.
- **Narrate Demonstrations**: When showing a movement or stroke, explain every detail. If you are demonstrating a front crawl, for example, describe how the arms move, the rhythm of the strokes, and how the body should feel in the water.
    - *Example: Instead of saying, "Swim to the left side," you would say, "Extend your left arm forward in a straight line, then push against the water as you move your body to the left."*
- **Actively Seeking and Giving Clarity**: Effective communication is a two-way process. Trainers must prioritize clarity in their instructions but should also encourage them to ask questions and voice their concerns. This ensures that students fully understand the instructions and feel comfortable clarifying when they are uncertain.
- **Ask Open-Ended Questions**: Instead of asking, "Do you understand?" which often results in a yes or no answer, use open-ended questions like, "Can you explain what you understood from my instructions?" This encourages them to share their understanding and allows you to address any misunderstandings.

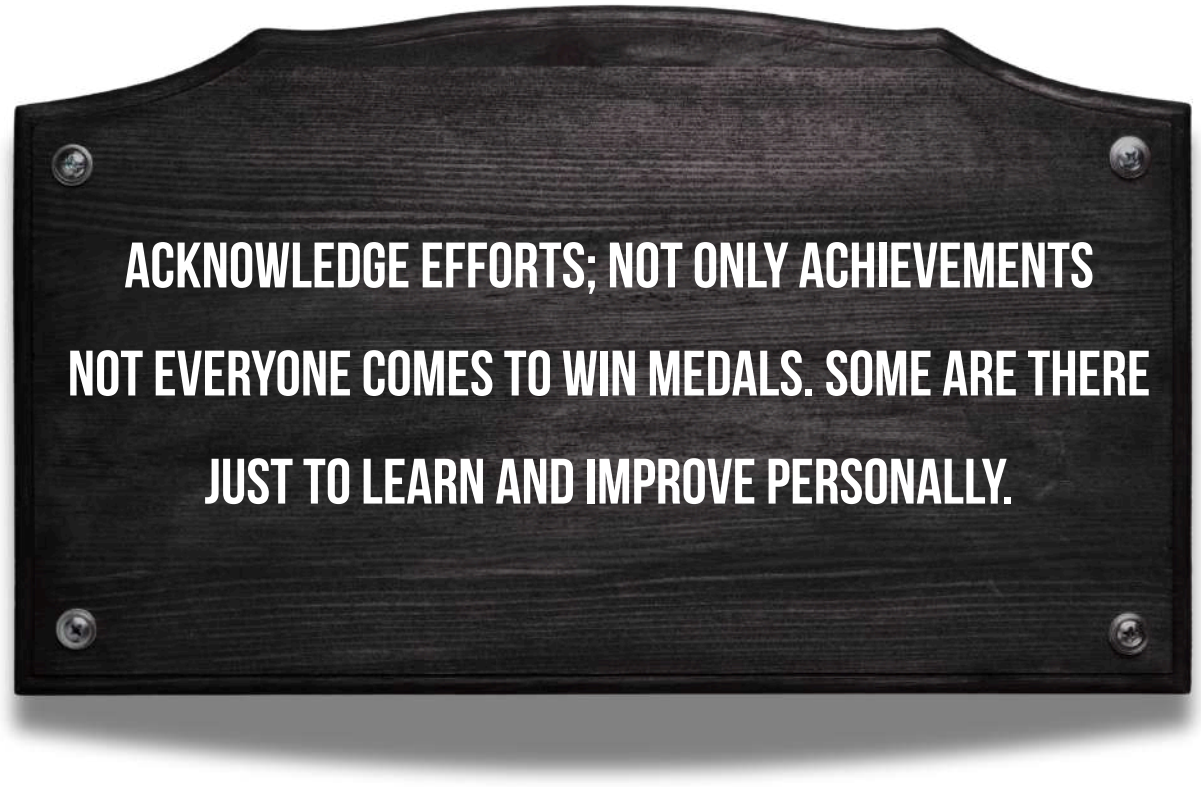
- **Encourage Feedback**: Invite them to express how they feel about each task. For example, after explaining a technique, ask, “How did that feel for you? ” or What part of that movement was difficult?”
- **Reiterate and Reinforce Instructions**: When providing instructions, especially for complex techniques, repeat key points and ask them to verbally walk through the steps to ensure clarity.
    - *Example: After explaining a technique, you can say, “Now, can you describe to me how you’re going to move your arms during this stroke?” This helps to process the instructions actively and allows you to spot any confusion.*



8.2 Modifying Language for the Swimmers

Language modification is necessary when teaching blind swimmers. Trainers should choose their words carefully and adapt their teaching style to ensure students feel respected and empowered. Creating a positive learning environment is equally important. The language has to be empowering, not discouraging. Also:





Language Modifications

Gender Sensitivity:

- Use gender neutral language. *'They'* or *'swimmer'* instead of *'he'* or *'she'*
- Ask their preference
- Avoid gender stereotypes and teach same technical skill to all
- Offer encouragement to all swimmers equally

Usage of Jargons:

- Use simple language, Instead of saying *"streamline position"*, say *"keep body straight and arms extended"*
- Explain the jargons used

Empathy and Encouragement:

- Acknowledge their efforts to learn
- Use positive Reinforcements *"Good, your arm positioning has improved"*
- Be mindful of emotional cues

PART 4:
DAY WISE LESSON PLAN FOR SWIMMING TRAINING

Lesson Plan

This lesson plan is prepared for a 14 day swimming training camp for People with Visual Impairments. The plan does not include preparations for competitive swimming, and is only basic swimming lessons and prepared for learning survival swimming. The schedule mentioned in this lesson plan need not be accurate and effective for all participants. The number of days may increase or decrease depending on the learner's type of disability, pace of learning, accuracy and efficiency of the trainer, number of participants, age and gender of participants, their previous experience in swimming among many others.

Note for All Sessions: Your voice is your primary tool. Be calm, clear, and descriptive. Always announce what you are going to do before you do it.

Day 1

Lesson 1: A Comprehensive Swimming Pool Orientation Tour

Make the learner feel comfortable to learn swimming. This should start with a swimming pool orientation. As discussed in the previous chapters this should include the do's and don'ts inside the swimming pool and on the pool deck, the place to keep the footwear, the shower area, toilet area, handrail etc.

Draw a map on the hands of the learner, if required and with consent, and help them develop a mental map of the swimming pool. This is the first step towards fostering independence and confidence in a swimmer with blindness.

Lesson 2: Practicing Exercises Before Entering the Pool

Every learner should be encouraged to practice exercises before entering the pool. This would also require tactile teaching. The position of hands, legs or head should be explained clearly.

The coach can either let the swimmer touch them and understand or explain to them by touch with consent.

The probability of an individual with blindness to engage in regular physical exercises are rare, especially for girls or women. This should be kept in mind while training them in exercises. For each of the exercise, the trainer should be able to explain the benefit or logic behind doing that particular exercise. Trainer should also be patient enough to repeat the exercise sessions, at least for the first 3-4 days and ensure it mandatory.

Lesson 3: Introducing the Water: Building Trust and Overcoming Fear

Start slow. Introduce the student to the water gradually. Allow them to feel the water's temperature and depth by using their hands and feet before fully entering the pool. Even after all the explanations and tour around the pool, do not assume the swimmer to be fully confident to enter the pool, when asked to. Offer physical support when necessary, such as holding their hands or standing close to them as they enter the water. Always ask for consent before physical contact. Encourage them to feel the water and do slow movements while providing assurances of support

Example: "You're going to feel the water with your hands first, then slowly step in. I'll be here next to you, and we'll take it one step at a time."

Lesson 4: Introducing the Basics of Swimming

Train the learners to submerge their face in the water. This would help them build the confidence. Trainer can also make the learners practice breathing on land, before entering the pool, focusing on inhaling through the nose and exhaling through the mouth. After ensuring that they understood the concept, let them practice in the water. Let the learner practice floating afterwards.

Day 2

Lesson 5: Introducing Kicking

The learner shall be introduced to kicking. It is recommended to make the learner practice the kicking on a bench or on the pool ends before transitioning to the water.

Provide support with a kickboard. Remember to provide kickboard with contrasting colour, if the learner has low vision.

In the absence of a kickboard, flat bamboo pieces, air filled empty and sealed plastic bottles tied together or Rubber tubes are also optional while teaching to float and kick.

Lesson 6: Water Gliding

Let the learners start gliding in the water from one end to the other. Ensure words of reassurance and support. The trainer has to be at the other end giving verbal cue using whistle, or tap on the shoulder to let them know about approaching end.

Injuries or hit on the wall in the beginning could affect their confidence and trust.

Day 3

Lesson 7: Introducing Arm Action

Explain how the hands should be shaped and how they move through the water to pull the body forward. Trainers are recommended to teach the position of the hands and its movements with touch. The trainer shall hold and rotate the hands of the learner, to make them experience the movement.

Day 4

Lesson 8: Introduce Back Float

Back float becomes an important part of the survival swimming for a person with blindness. In cases where they are trapped in a place surrounded by water and cannot identify which direction to swim to get themselves to safety, they could back float and remain above the water till a help reaches them. Hence ensure that every blind swimmer learn this lesson without fail.

While teaching, ensure to provide necessary support in the beginning by providing support to the head and shoulders.

Day 5

Lesson 9: Practice Session

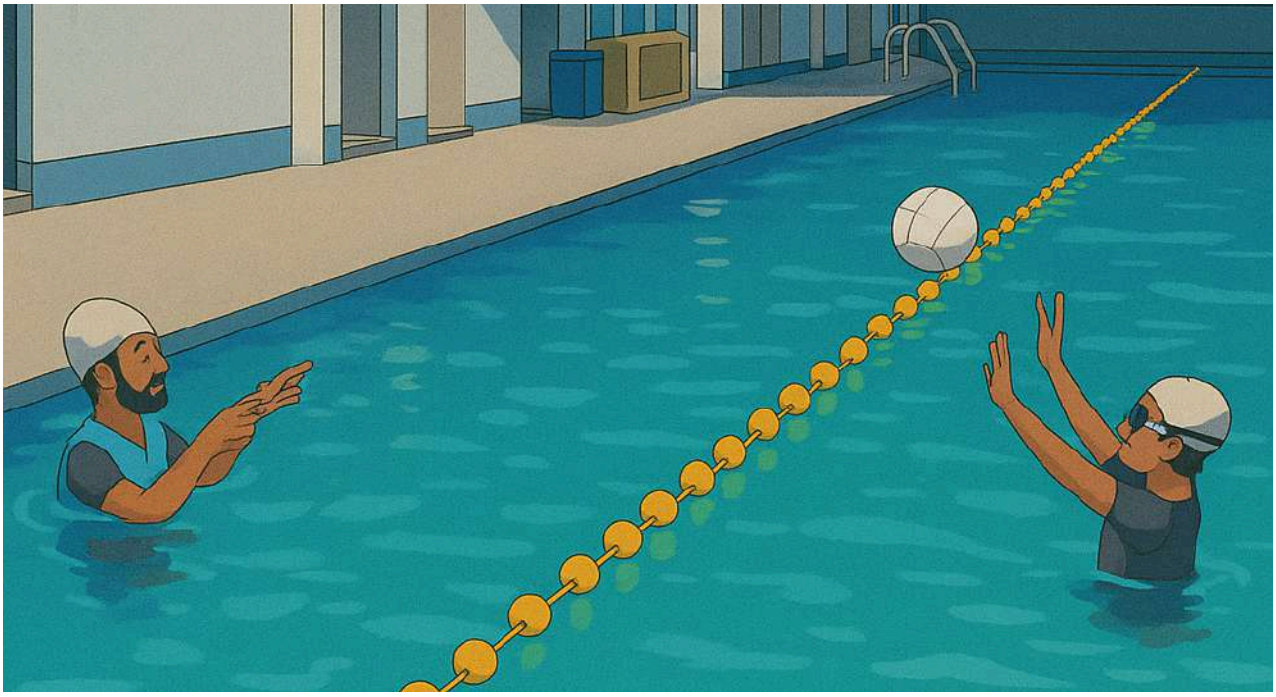
Let the swimmers practice all the learned lessons including breathing, kicking, gliding and floating on the back. This would help other swimmers to reach the same track as others, in a group learning session.

Remember to avoid comparisons. Let every learner learn in their own pace. Encourage buddy learning and make it mandatory to bring everyone together, instead of comparisons.

Day 6

Lesson 10: Sound Games in the Water: Reinforce All the Learned Skills

The 6th day is dedicated to sound ball games in the water. Games encourages the learners and improve their confidence. There are sound balls available, which would facilitate their learning.



Day 7

Lesson 11: Freestyle

Introduce Freestyle swimming. As discussed the positioning of legs and hands should be explained with precision and clarity. Also make them touch the trainer's body movements and understand. This increases their trust in the trainer and make them feel their needs are accommodated.

Day 8-10

Lesson 12: Freestyle Practice

The next 3 days is for practicing Freestyle. Encourage Buddy swimming. Provide tapping whenever required. This also provides an opportunity to bring the slow-paced learners to reach with their buddies.

Day 11

Lesson 13: Backstroke

Introduce Back stroke slowly. As in Freestyle, explain the positioning and movement with clarity and precision.

Day 12-13

Lesson 14: Backstroke Practice

The next 2 days is for practicing Backstroke. Encourage Buddy swimming. Provide tapping whenever required. This also provides an opportunity to bring the slow-paced learners to reach with their buddies.

Day 14

Recapture Learned Lessons

Let all the participants practice the lessons one by one on the final day. Provide them feedbacks and words of reassurance.

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