

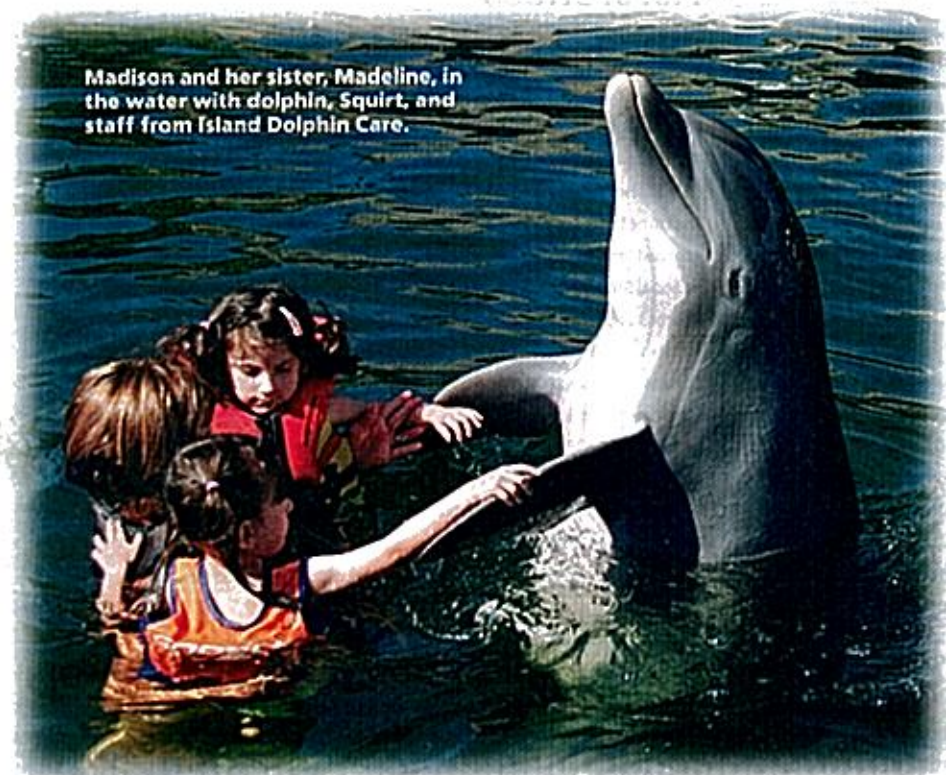
Assistive Technology and Dolphin Therapy: A Wonderful Combination

By Eli Smith and Gretchen Thomasson

In this 12-part series, *EP* explores the benefits of aquatics therapy and recreation for people with special needs.

Madison and her sister, Madeline, in the water with dolphin, Squirt, and staff from Island Dolphin Care.

Photos courtesy of Island Dolphin Care.



“I want pudding please.” These are words that might be taken for granted, but what makes this so special is that Madison is telling her mom what she wants to eat for the very first time. It is therapist Gretchen Thomasson, BS, SpEd from Island Dolphin Care (IDC), a non-profit agency in Key Largo, FL, who introduced a special eye-tracking computer called the MyTobii to Madison and her family. Madison is an adorable four-year-old child who attended Island Dolphin Care’s five-day program with her parents

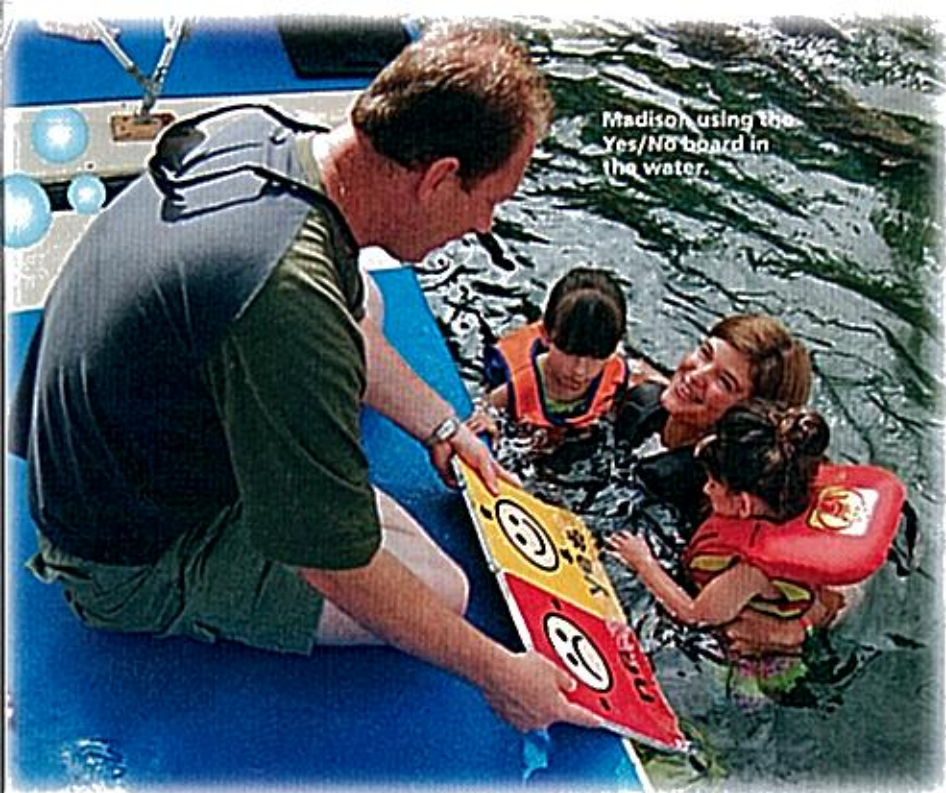
and twin sister, Madeline.

The program at IDC includes creative classroom sessions and motivational in-water therapy sessions with the dolphins. Activities are tailored to meet the needs and abilities of each child. During the sessions, family members are welcomed to join in the fun while learning techniques that they can take home.

Madison was born with cerebral palsy and cortical vision impairment. As a result, she has very limited use of her extremities and is just starting to walk with assistance. She is

predominately non-verbal, with the exception of a few words (*more, yes, hug*). Madison is an incredibly smart girl who understands much more than she can express. Just how intelligent she is became apparent to Thomasson after placing the MyTobii in front of her. A series of cameras pick up the movement of Madison’s eyes, while software determines where to place the cursor. What was so amazing about this for Madison was that it enabled her to communicate with her eyes, which is truly her best way to make choices. Madison’s mother and Thomasson began designing pages for her to use while participating in class and during meals. A combination of illuminated symbols and black backgrounds provided an effective way for Madison to distinguish between choices. Now that she was able to see objects on the screen, the team needed to find an exciting way to capture her attention. It was determined that Madison’s twin sister, Madeline, has voice sound and inflection very similar to Madison. Madeline’s speech was recorded to each button on the computer screen. Thomasson first introduced Madison to pages containing two options (i.e., *eat* or *drink*). After she used her eyes to select the desired button, the computer spoke, and she was reinforced with the food, paint color, or toy immediately. Madison was learning cause and effect each time she selected a button.

Using the computer allowed Madison to interact with her family in a way that she never had before. Rather than guessing, she was finally able to tell them exactly what she



Madison using the Yes/No board in the water.

notebook size boards offer bright contrasting colors and symbols that are large in size. Madison was now able to choose what she wanted by looking at one board that said *yes* or the other that said *no*. Her mother, father, and sister all took turns asking Madison if she wanted Squirt to play with a big rubber duck. She simply looked to *yes* if the idea sounded fun or to *no* if she was thinking about a different toy, like a volleyball. Having the opportunity to interact with Squirt in different ways empowered Madison to make choices using the symbol boards. She left the water and the classroom each day with increased confidence and the understanding that she can communicate with the people around her using assistive technology like the Yes/No boards or the MyTobii.

Island Dolphin Care works to find positive solutions for people like Madison and her family. They not only come to swim with dolphins, but to learn techniques and strategies that will help

continued on page 66

wanted. At the same time Madison was learning to use her new voice, her twin Madeline was beginning to realize she could now carry on a conversation with her sister. Madeline had longed for a relationship where the two of them could exchange words. The more Madison was using the computer, the more exciting the possibilities became. "How can I incorporate this with what happens during the swim session with the dolphins?" Thomasson asked. The next day, everyone in the classroom waited with smiles while Madison chose between pictures of herself in the water with her dolphin friend, Squirt. Using two pictures at a time, she could select a picture of herself kissing Squirt or holding onto the dorsal fin and swimming. Each time the computer announced the choice, everyone cheered. Madeline was of course stationed nearby with glue to help her sister create the art activity.



Facilitating communication for a non-verbal child is crucial; however, computers and water do not mix well. While in the water, the clients interact one-on-one with the therapist and dolphin. The dolphins are used as motivational tools that reward children for hard work. Whether a child is being asked to extend an arm or to communicate effectively, they learn that this will result in a dolphin interaction.

Thomasson had shown Madison that she can make choices in the classroom


with the MyTobii, but a different technique was needed in the water. The solution was to use large communication boards. The

a special place
for special children

www.islanddolphincare.org

Island Dolphin Care
provides
dolphin-assisted therapy
for special needs children
from all over the world



Island Dolphin
Care

150 Lorelane Place • Key Largo, Florida 33037 • TEL 305.451.5884 • FAX 305.453.5399
fonzie@islanddolphincare.org

a 501 (c)3 not for profit organization

continued from page 65

improve the quality of their lives across all environments: school, home, work, the community, etc. The program is designed to assist children and adolescents who have chronic medical, developmental, or physical disabilities. The family is a main focus of the program. •

Gretchen Thomasson holds a Bachelor's Degree in Special Education from the University of Maryland at College Park. Prior to joining the staff, Gretchen was a special education teacher in Maryland for six years. She came to Island Dolphin Care in July 2005 and currently works as a therapist and internship coordinator.

Eli Smith holds a Bachelor's Degree in Special Education from Ball State University in Indiana. He came to Island Dolphin Care in 2006 as a dolphin assisted therapist. He offers assistive technology workshops to families attending the program, as well as from the community. Please visit Island Dolphin Care's Web site for additional information at www.islanddolphinscare.org. You may also contact the office by email. Email to Fonzie@islanddolphinscare.org or phone at 305-451-5884.

The MyTobii Speech Generating Device enables individuals with special needs to communicate using only their eyes. The MyTobii is a Windows XP tablet style computer that can be mounted to a wheelchair or used at a desk, allowing users to interact with it by just looking. It makes communication much more effective for users who previously relied on slow and cumbersome access methods such as single or multiple switch, scanning or head-mounted pointing devices. Users that benefit from MyTobii include people of all ages and cognitive functioning with cerebral palsy (CP), ALS, multiple sclerosis (MS), spinal cord injuries, and many other conditions. MyTobii's unique ability to deal with large head movements has opened up eye control for people who are unable to use other eye controlled systems, including children and users with CP. The MyTobii takes only minutes to set up. The user does not need to "do" or "wear" anything. You just sit in front of the unit and look at keys or symbols displayed on the screen, as in front of a regular computer. After a fast, one-time calibration, no additional adjustments are needed. Eye control is fully automatic and so easy that individuals of all cognitive levels can communicate with the system.

The MyTobii can interact with a broad range of leading communication packages such as Viking Communicator 4, Boardmaker with Speaking Dynamically Pro and Intellitools Classroom Suite. The MyTobii is Medicare/Medicaid Approved and has been authorized by many private insurance companies. For more information, visit www.tobii.com.



Madison using the MyTobii in the classroom at Island Dolphin Care.

Crystal Springs School



Institute for Developmental Disabilities, Inc.

Providing quality residential, special education and treatment services in a professionally caring, homelike environment since 1953.

- 45 acre campus in Southeastern Massachusetts: close to Boston, Cape Cod, Providence and Newport, RI.
- Programs for severely and profoundly multiply handicapped children and young adults from birth - 22.
- 365 day programs providing 24 hour nursing availability.
- Licensed by the MA Department of Early Education & Care.
- Approved by the MA Department of Education.
- Member of the MA Association of Approved Private Schools.

For Information, Please Call Our Director of Admissions:

**1-800-840-8087, ext. 3375
or 508-644-3101, ext. 3375**



EVERGREEN CENTER

Two Programs - One Standard of Excellence

- The Center for Behavior Development**
- ◆ Dual Diagnosis of Mental Illness/ Mental Retardation
 - ◆ Severe Maladaptive Behavior
 - ◆ Traumatic Brain Injury
 - ◆ Posttraumatic Stress Disorder
 - ◆ Age 6-22

- The Center for Basic Skills**
- ◆ Mental Retardation
 - ◆ Autism
 - ◆ Sensory Impairments
 - ◆ Medical Need
 - ◆ Age 6-22



Director of Family Services & Admissions
Evergreen Center, 345 Fortune Boulevard, Milford, MA 01757
(508) 478-2631 www.evergreencenter.org

CAMBRIDGE CENTER FOR BEHAVIORAL STUDIES



- ▲ **Effective Parenting**
- ▲ **Teaching Methods that Work**
- ▲ **Autism and ABA**

A non-profit organization, bringing you behavioral solutions.

www.behavior.org
your premier online behavioral resource