Making Cognitive Connections:

Memory Compensation Using Windows Mobile

An Integrated Manual and Cognitive Rehabilitation Workbook

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Published by ID 4 the Web
Laguna Hills, CA

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ISBN-13: 978-0-9816670-1-0
ISBN-10: 0-9816670-1-5

Distributed by ID 4 the Web, Laguna Hills, CA
Phone: 949-310-3202
e-mail: michelle@id4theweb.com

Web site: http://id4theweb.com or http://makingcognitiveconnections.com

Credits & Special Thanks

Editor & Technical Reviewer:
Jan Heck

Cover Design:
J. Denis Heck

Special thanks to the following individuals for reviewing the content and providing invaluable feedback & support:

Jan H.
Celeste R.
Scott F.
Cheryl R.
Mike D.
Art L.

Many thanks to Bob Serafini and Pharos Science & Applications, Inc. for their partnership with Coastline's Acquired Brain Injury Program

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Michelle Wild is a professor at Coastline Community College and has taught in Coastline's Acquired Brain Injury Program for over 22 years. In addition to teaching cognitive remediation skills to adults with brain injuries, she teaches classroom and online computer courses. In creating technology-based compensation strategies for brain injury survivors, Ms. Wild has found the perfect niche to combine her passion for teaching and her fascination with computers. With Jan Heck, she has co-authored five books on web design. She was recognized for her accomplishments by being named the 2000 Orange County Community College Teacher of the Year and by receiving the 2001 David R. Pierce Faculty Technology award, sponsored by Microsoft Corporation and American Association of Community Colleges. Most recently, Ms. Wild was nominated for U.S. Professors of the Year.

Stacey Hunter Schwartz, Ph. D.

Stacey Hunter Schwartz, Ph.D. has eighteen years of experience in the cognitive rehabilitation field. Dr. Schwartz is a former Dean of Instruction for Special Programs, and also worked as a counselor and instructor in Coastline Community College in Costa Mesa, California. She directed the college's Acquired Brain Injury Program, which provides cognitive retraining for over 200 adults each year, and led the development of Coastline's web-based Cognitive Retraining Specialist vocational training program. Dr. Schwartz guided a team of rehabilitation professionals who created and now disseminate a prescriptive assessment linked to a comprehensive curriculum package for adults and adolescents with acquired brain injury. She authored a chapter on Traumatic Brain Injury for a graduate textbook in rehabilitation counseling. Most recently, she taught psychology at Washburn University in Topeka, Kansas.

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Foreword

Unless you acquire a brain injury at some point in your life, you don't really stop to think about *how* your brain works; it just *does*, and you take complete advantage of it every single day. Only after a tragedy occurs, your life comes to a complete stop, and you are forced to very slowly relearn multitudes of daily functions do you begin to appreciate your own brain and how it serves your needs.

I think I was a good example of that theory. Before the day that I "died" in a terrible accident, I really never gave it a thought. I just proceeded through each day with relative ease, content with my busy life as an elementary school teacher, author, wife, and mother. My brain automatically told my body what it needed to do minute by minute and everything just worked together effortlessly. But one beautiful summer day, all of that came to a very sudden stop. While attempting to cross a busy street using a crosswalk, I was struck by a speeding car that had ignored the red light overhead. I remember nothing of the accident itself, but witnesses later told me that I was thrown about 30 feet straight up into the air and then plummeted to the ground, landing directly on my head. The life I knew no longer existed for me, and I had to start all over again, learning another way of life. I never taught again, and that was the biggest loss I could ever imagine, but I could still write with a great deal of effort and so I spend my days at home, writing when I can.

Although the accident left me with very painful head, neck, and back injuries that took years of therapy and medication to improve, the biggest problem to me by far was my brain injury, which included retrograde amnesia and long-term and short-term memory loss. That meant not being able to think correctly, to remember what had happened an hour ago, a day ago, a week ago, to organize my thoughts like I always had, or to understand what was going on around me at times. My brain just didn't work anymore. It didn't work in that it was unable to store, organize, or locate information that my body needed to function. How did you know when to eat if you really couldn't remember the last time you ate? How did you know what to put on in the morning if you couldn't remember what you wore yesterday? How could you cook a meal when you couldn't follow or even functionally read a recipe? Boy, do you miss your brain when it's gone!

I found myself writing everything down, having post-it notes and different calendars all over the house, making countless lists and constantly asking my family to help me remember even the smallest task. My husband or kids went with me everywhere so I could get the things I needed and wouldn't get lost in the store looking for something. I had to depend on them way too much, which was hard on both them and me. And I really missed my independence. I felt like a prisoner in my own home most of the time.

I lived this way for several years when I finally found the Acquired Brain Injury (ABI) program at Coastline Community College in Costa Mesa, California near where we lived at the time. It was a very inexpensive, class-based program, with about 100 students in all, who spent four days a week on the college campus with a wonderful staff made up of some of the most caring people I've ever met. I spent almost three years in the ABI program. I remember in the beginning of my time at Coastline feeling awkward and very anxious to be somewhere without my family. As I listened to the stories the other 20 students in my

class told about their accidents and illnesses, I felt very sad because they also had led happy and productive lives in the past. There were doctors, lawyers, housewives, students, business men and women of all kinds. We even had a world-famous yacht designer and a young Marine in our class.

The sadness I felt at first, however, soon turned to joy as I realized I finally had found people who understood what my life was really like, because they were going through the same thing. I had found friends! Friends who knew what it was like to feel stupid all the time and to deal with the looks people gave you when you couldn't do something the "right" way. They taught me so much about how to deal with a brain injury on a daily basis. They had been through some pretty incredible things: accidents, illnesses, brain tumors, aneurysms, surgeries. They taught me how to feel strong again, how to be brave when I was by myself in the real world, how to stand up for myself and how not to keep apologizing for everything I did wrong. They amazed me with their courage and strength in the face of so many obstacles. I still keep in touch with several of them now, years later and consider them all lifelong friends.

I found my instructors at the ABI Program to be some of the most gifted people I've ever known. They not only are very skilled in teaching cognitive retraining strategies; they are also skilled in helping you adjust to your new life. Their techniques and lessons were so unique and individualized, it was amazing to me as a former teacher to watch them. Michelle Wild and my other teacher, Kim Petersen, helped us deal with our social and emotional problems with as much ease as teaching us about critical thinking skills, organizational strategies, and new ways of approaching math problems. I learned so much and grew so much as a person while at the ABI Program. I guess this was apparent to my friends and family as well, for when I graduated in 2000 my younger daughter thanked Michelle and Kim by saying to them, "Thanks for giving me back my mom." That was really special to me.

It's been nine years since I graduated from the Acquired Brain Injury Program at Coastline Community College in Costa Mesa, California and I've kept in touch with my teachers as well. On a recent trip to California, I went back for a visit. As I talked with my teacher, Michelle Wild, I told her that I wished I could come back to Coastline for some refresher courses, but I now lived too far away. I related to her how I was feeling rusty and having some problems due to my brain injury and that I needed her help again.

Michelle told me that she had just the thing for me, a new book she was co-authoring with Stacey Hunter Schwartz, who had been the Dean of Instruction while I was at ABI. The book was called *Memory Compensation Using the Pocket PC*. They were writing the book for all people with brain injuries, but particularly hoped that it could be used by returning veterans wounded in battle. She knew that would really interest me, as I have written seven books on military history, covering World War II, Korea, Vietnam, and Desert Storm and interviewed hundreds of veterans for the books. Over the years, I've learned a lot about the many effects war has on its survivors… physically, mentally and emotionally. I've also lived with all of this for over 40 years, as my husband served with the 101st Airborne Division (Infantry) in 1969 and 1970 in Northern I Corps, Vietnam and is a disabled veteran.

This unique book, Michelle assured me, would be something I could use on my own at home to catch up with the newest technologies created to help compensate for memory problems. It also combined many of the strategies I had been taught while in her program, only now it was all rolled into one convenient tool, a pocket PC. I told her I'd never used a pocket PC, but I knew quite a bit about a regular PC. She was sure that I could follow the step-by-step instructions with maybe just a little help along the way. Besides, think how cool I'd look flipping out that neat little pocket PC when scheduling appointments with the dentist or looking up a phone number. I liked that idea!

I took the book home with me along with a pocket PC that Michelle had given me, and started on it after vacation. It had been so long since I'd read or studied much of anything that I at first found it difficult to even look at a full page of print. I had to cover the rest of the page with a blank piece of paper and just focus on one paragraph at a time. That became easier as I went along. I did have to read each chapter more than once at first and then scan the pages again each time I picked the book up to continue. This took me a long time.

In the beginning I remembered a strategy that I had learned, and went back and read the cover, the title page and the table of contents, as well as flipping through the book all the way several times to see the general layout. This all helped me understand the basic concept of the book. (I also read through Table 1-1 on page 4 many, many times to help me connect with the skills I was going to learn about. It took me a while to understand it, but I found it very informative about the functions of the brain in general.)

The table of contents helped the most when I started out, as it showed me that the pocket PC wasn't as complicated as I thought it might be. It basically consisted of only *three* applications that I really needed in my everyday life:

1. a calendar that could be used just like a day planner
2. a contacts program that could be used just like an address book
3. a GPS just like the one I'd learned to use in our car

This really was going to be cool and, besides, the pocket PC fits right into my purse or my jeans pocket, no problem. This was a lot easier than carrying a heavy bag with calendars, day planners, and address books everywhere I went. It also meant not having to find a place at home to store all of this as the years go by (Somewhere in a storage box, I actually have kept all our home calendars from 1989, when I had my accident, through 2009!).

As I continued through the book, I appreciated the way it had been carefully written for use by people with brain injuries. (I should have known to expect that from Michelle and Stacey, but I think of these two wonderful women as true and caring friends first and as noted experts in brain injury second.) It is designed with short chapters that each contain overviews, visual figures, performance exercises (Try It Now!), numbered lists, tables of information, Making Cognitive Connections, comparisons of similarities and differences, and review exercises. There are also two appendixes in the back of the book for more help. I found this to be an exceptionally helpful book.

As I learned during my time in the ABI program, everyone's brain is very different from everyone else's brain at birth. It is amazing how well they work without us really knowing it's happening. And everyone's brain injury is different as well, depending on what part of the brain is injured and to what extent. The result of this is that we all have to relearn information and skills at different levels and at varying speeds. Some people will progress through this book with little difficulty, some will need help as they go along, others may need the entire book read to them, and still others will need it read and explained to them several times. Whatever works for you is just OK. The result will be worth the effort you have to put into it. I wish you luck with this as you go along, and I salute you for the courage you have to summon every day to live with a brain injury.

I especially salute all of you who have served in the military. Freedom is not free. Thank you for your fine service to our country and Welcome Home!

Sandy Strait

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Before You Begin

Before you begin working your way though this book, I want to take this time to assure you that this book was written with the following intentions:

1. **To present information in a way that isn't too overwhelming:**
    - Each chapter is written with short paragraphs.
    - Each chapter has lots of white space to break up the text.
    - Steps are provided as numbered lists, for example:

To Check the Battery Strength of the Device Using the Battery Indicator Icon:

1. Make sure the Today screen is visible.
2. Use the stylus to **tap** the **Battery Indicator** icon at the top of the screen.
3. Verify there is at least a 35-40% battery charge. If less than 35%, charge the device as soon as possible.

    - Informative appendixes are included, for example:
        i. Synchronizing Your Device
        ii. Frequently Asked Questions
        iii. Quick Step Summary
    - Integrated references to relevant videos from training DVD are included, for example:

View the following videos available on the Windows Mobile Essentials training DVD:

- **The Today Screen**
- **Locking & Unlocking the Device**
- **The Wireless Connection Icon**

2. **To include relevant images or pictures to help you know you are in the right place:**
    - Each chapter contains pictures that correspond with the information seen on the device screen.
    - Each chapter contains pictures of each screen discussed in the book and training DVD.

3. **To include practice exercises to emphasize skills:**
    - Each chapter includes numerous "Try It Now" activities, allowing you to practice immediately after a skill is introduced.
    - Each chapter includes "Making Cognitive Connections" exercises designed to help you see how the same skills being used on the device apply to your everyday life.

I hope you find the layout of this book straightforward and easy to follow. Focusing your attention on the cognitive skills that underlie learning to use a PDA/smartphone should have a significant impact on your overall recovery.

Chapter 1: Making Cognitive Connections After Brain Injury

If you have suffered a brain injury, whether from a trauma (such as a fall, an auto accident, or a blast from an explosive device), a stroke or a brain tumor, there is a good chance that you experience memory impairment.[1] Survivors of acquired brain injuries (ABI) typically struggle with memory losses, which affect their daily functioning, their relationships and their self-esteem. After a severe brain injury, memory deficits are usually obvious.

After a mild or moderate brain injury, however, deficits may not be immediately apparent. Not until leaving the organized structure of a hospital setting or military life may you notice the effects of a mild brain injury. Then, without a regular schedule to follow, you may experience more difficulty in remembering things, organizing your papers or even finding the initiation to get started on a task. You may be unable to recall names of friends or family or to find where you parked your car in a parking lot. Despite the best intentions, keeping doctors' appointments or completing assigned tasks may seem impossible. Feelings of being lost, out of control, incompetent or unproductive may lead in turn to conflict with family members or co-workers. Depression or anxiety may result or, if already present, intensify.

Compensating for Memory Problems: Old-Fashioned vs. High-Tech Methods

In our combined 40 years of experience working with survivors of ABI in an award-winning, college-based cognitive retraining program[2], we have seen our students try many methods of memory compensation, from writing on their hands to sticking post-it notes all over their homes to tying strings around their fingers. Naturally, like other brain injury rehabilitation professionals, we have encouraged more organized methods. For years, professionals have advised their patients to carry a notebook or day planner at all times to write down important events, tasks, appointments, etc. to compensate for impairments in memory. Just as amputees improve independence with a prosthetic limb, individuals with memory impairments improve independence with a memory prosthetic. But carrying a notebook can be stigmatizing. Who wants to carry around an advertisement of a memory problem? Not surprisingly, few of our students complied consistently; more rejected the strategy completely. Most fell in between.

More recently, we have begun to recommend an alternative: personal digital assistants (PDAs), also known as hand-held computers or Pocket PCs. Because all kinds of people—everyone from teenagers to executives—can be found sporting PDAs (e.g., Palms) and smartphones (e.g., BlackBerrys), there is no stigma to carrying this type of device at all times. Such a device is in no way associated with disability.

[1] Although we have designed this book for survivors of acquired brain injury, students with learning disabilities or people with multiple sclerosis may also find this approach to memory compensation useful.
[2] Coastline Community College Acquired Brain Injury Program, Costa Mesa, California

Therefore, rather than avoiding compliance with this memory prosthetic method, many individuals with ABI are attracted to the "coolness" of the device. Consequently, compliance by individuals with ABI is much greater than with other memory compensatory systems, and higher success is achieved.

Because of their flexibility and breadth and depth of functionality, we believe PDAs/smartphones are, for most survivors, superior to paper calendars and day planners for use as a memory aid. The small size of the device allows for this very powerful prosthetic to be available almost at all times. Consistently being able to keep the device in a pocket or purse also makes it easier to avoid losing it. One of the greatest disadvantages of the traditional paper notebook systems for memory compensation was that when individuals lost their notebooks, they had, in effect, lost their memories. Now, with the capability to synchronize the data on the PDA/smartphone to a home computer with a personal information program such as Microsoft Outlook, the individual with ABI can limit losses to just one day's worth of data.[3]

Whether your brain injury is mild, moderate or severe, a PDA/smartphone can help. The device can be useful for tasks as varied as scheduling appointments, tracking family budgets, finding new places and recalling names of people. If you have a more severe injury, you may find that having an alarm prompt to get off the couch and go take medication makes the difference between needing constant supervision and being able to be left at home alone.

Research to Support PDA Use

Research supports our observations. In a recent study funded by the National Institute on Disabilities and Rehabilitation Research,[4] people with traumatic brain injuries who used traditional paper notebooks did not perform as well as those who used hand-held computers (i.e., pocket PCs or personal digital assistants; PDAs), which were programmed by the experimenters' associates to prompt the users to perform various common tasks. Not only did PDA use improve functioning, but use of the PDA also improved sociability, self-esteem and independence.

This research is great news if you have a teacher, therapist or family member to program your PDA for you. But what if you don't? How can you function independently? We had a hunch that many people with ABI were capable of programming their *own* PDAs, so we conducted a pilot study to test our theory.[5] Forty adults (aged 19 to 58), who enrolled in our community college brain injury program, were given 12 hours of PDA training over 5 weeks. They used Pharos 535 GPS (Windows Mobile 5) PDAs to compensate for memory and organization deficits and they used this book to learn the programming skills. They learned to track their own appointments, create to-do lists, set reminder alarms, store and

[3] Some people, of course, are reluctant to use technology. But we have found that even students who resist the transition from paper to electronic calendar still benefit from engaging in the process of performing many of the exercises in this book. Later in the chapter, we'll tell you more about the benefits beyond memory compensation.

[4] Gillette, Y. & DePompei, R. (2008). Do PDAs enhance the organization and memory skills of students with cognitive disabilities? *Psychology in the Schools, 45,* 665-677; (NIDRR Project #H133A030810)

[5] Wild, M. & Schwartz, S. H. (2008). Memory compensation using the pocket PC: Making cognitive connections for brain injury survivors. *Journal of Head Trauma Rehabilitation, 23,* 352-353.

recall names and addresses, take notes, even plan and record budgets and find directions to avoid getting lost. With this innovative approach, they also learned to apply the skills learned in PDA training to the other real-life activities that cognitive rehabilitation programs typically address.

Thirty-five students completed the program and took a short-answer knowledge test plus an application test of PDA competency. In other words, they weren't just quizzed on terms about the PDA. They had to demonstrate that they could perform various functions on the PDA in response to a particular situation being described. All five students with mild impairment, 11 of 13 (85%) students with moderate impairment and 6 of 10 (60%) students with severe impairment achieved the 80% competency level. All seven students with severe aphasia (language impairments) reached the 80% level.

In addition, all students demonstrated a resounding positive reaction to the PDA training program. During the study, they had been given PDAs on loan to use. After the study ended, every single student elected to purchase the device.

Memory Compensation as a Starting Point for Cognitive Retraining

The majority of students in our program arrive on campus complaining of memory problems, but many are not aware of other problems in their thinking, such as deficits in visual processing, attention to detail, sequencing or organization. Accordingly, we've observed that many students are highly motivated to learn strategies to compensate for memory loss, but some are less interested in learning other compensatory strategies. Blaming failures on memory, rather than on other cognitive deficits, somehow seems simpler. And, because so many people carry calendars or PDAs/smartphones, using such a device does not advertise a disability. Therefore, learning to employ memory strategies has been one of the students' most popular endeavors.

To understand this book, it is helpful to understand what cognitive retraining is. Cognitive retraining involves three activities: (1) engaging in general, stimulating cognitive activities; (2) exercising the brain by performing specific tasks designed to develop new neural pathways in the brain; and (3) learning compensation strategies for cognitive skills lost after a brain injury, i.e., learning to perform a task in a new way so that the injured part of the brain is not needed for the task.

Almost any task that uses the brain can provide general cognitive stimulation. Neuropsychologists, speech pathologists and teachers have created hundreds of exercises that work on the various cognitive skills which humans require to function in the world, and they teach strategies to work around deficits. Because memory deficits are so common after brain injury, most cognitive retraining programs address memory compensation techniques.

Some students experience exercises designed to build new neural pathways as boring and unrelated to real life. And most compensatory strategies are labor intensive. Therefore, motivation to engage in cognitive retraining activities can become a problem for many survivors of ABI. Conversely, some survivors are highly motivated to perform the assigned tasks for their therapists or teachers, but they do not spontaneously apply the skills outside the classroom or therapist's office.

Compensatory strategies are only meaningful if you employ them in real life, beyond the classroom or therapist's office. What survivors need is a tool that helps them build new neural pathways and allows them to develop compensatory strategies in a useful context. This goal led us to focus on training students to use PDAs/smartphones for memory compensation, and, as we thought about the idea more, we realized that such training could open up opportunities for students to work on a wide array of other cognitive skills. Given students' natural interest in memory, we realized there is no better context than within memory compensation training itself, especially if we provide a cognitive connection to your own real-life experience. This book is the natural outgrowth of our musings.

What Makes This Book Different

This approach is unique because it teaches you how to use a PDA/smartphone by focusing on the cognitive skills (like attention to detail, sequencing, etc.) required to program and use the devices, and then has you apply those same cognitive skills to your everyday life.

In this book, we use the PDA/smartphone training as a relevant real-life activity. Not only do we teach you how to use the device, but we also provide structured exercises to help you make cognitive connections between what you are learning to do with the PDA/smartphone and your life. In other words, we are simultaneously providing general cognitive stimulation, attempting to build specific new neural pathways, preparing you to apply what you are learning to real life and teaching you a highly effective memory compensation strategy. [6]

You will get multiple practice opportunities, and these trials are spaced out in time. The book provides multiple examples of each skill set and reviews after each lesson. In using the book, you also get the practice in integrating the PDA with other cognitive strategies. Finally, you get practice with feedback in applying these strategies to real-life contexts. You will use the PDA/smartphone to schedule your life with such tasks as entering items in your schedule and setting alarms.

You will be working on achieving two goals simultaneously. Not only will you be learning compensation strategies for memory challenges, but you will also be receiving training in other cognitive areas. Individuals with brain injury struggle to recognize deficits in these critical areas, such as visual processing, attention to detail, and identification of relevant and irrelevant information. But with this book's *Making Cognitive Connections* approach, you will be increasing your awareness of these skills while you work on memory compensation. Thus, this book provides the basis for a cognitive retraining program and a memory compensation system in one.

[6] Thus, this approach incorporates both of the two approaches (namely functional-experiential and cognitive-didactic) to rehabilitation which were demonstrated to be effective in a controlled study by researchers at the University of South Florida and the Defense and Veterans' Brain Injury Center. Vanderploeg RD, Schwab K, Walker WC, Fraser JA, Sigford BJ, Date ES, Scott SG, Curtiss G, Salazar AM, Warden DL. Rehabilitation of traumatic brain injury in active duty military personnel and veterans: Defense and Veterans Brain Injury Center randomized controlled trial of two rehabilitation approaches.

Design of the Book

Unlike a typical PDA/smartphone manual, which many users find frustrating and technical, this book is much more than a reference source; it is consciously structured to be a learning tool for adults with ABI, written with input from adults with ABI. For each PDA/smartphone function, you will:

- Read about what it is and how to do it
- Follow steps to perform that function on the device
- Make the cognitive connection by learning what cognitive skills are being used to perform the task
- Identify real-life examples from outside the realm of the PDA/smartphone which require you to use the same cognitive skill.

For easy reference later, in Appendix D, you will find Quick Steps for performing the various functions.

This book even includes fill-in graphic organizers like matrices and comparison charts so that you will have structured guidance in learning important features of the device.

As noted above, there are lots of cognitive exercises out there designed to build new neural pathways—paper and pencil tasks, computer games or exercises—and lots of memory compensation strategies (e.g., paper calendars and organizers, lists, portable and non-portable electronic calendars and organizers). What's different here is the link between the training to use an electronic tool students enjoy using as a memory compensation device, the identification of the underlying cognitive skills involved, and the opportunities for you to identify applications to your life.

Importance of a Training Partner

The book can be used by you working alone, but we recommend that you recruit a professional (e.g., therapist, teacher), or at least a relative or friend, to help you. Such a person can be a resource for staying on track and can serve as a sounding board to discuss applications to your own life. After you complete each exercise, you can check in with the therapist or partner to discuss the outcome. Spend some time demonstrating how to perform the new PDA/smartphone function and then brainstorm with the therapist or friend what other applications of that particular skill may be challenges in your life. Deficits in memory or other areas of cognition may make it hard for you to recall or even identify incidents of cognitive difficulty, so you or your therapist may need to get additional information from someone who has observed you at work, at home or at play.

As you maximize your independence, the quality of life for your family members will also be increased. For example, a parent who is struggling with the awkwardness of supervising an adult child who lacks the initiation to get off the couch may find relief in being able to get out for a few hours or even to return to work. An overwhelmed spouse will find marital tension decreased if the wounded spouse can take over more family responsibilities, from chores as seemingly simple as emptying the dishwasher to more complex tasks like paying the bills.

Because of the potential for improving life for the injured person as well as for the entire family, many family members will want to facilitate PDA/smartphone use, especially when the family lives some

distance from where services are available. This book can help train family members to assist the individuals with ABI in learning to program, synchronize and retrieve information from the devices as well as to make cognitive connections to real-life examples of activities which use the same cognitive skills as the PDA/smartphone functions require.

Making Cognitive Connections

Every step you perform with the PDA/smartphone involves using particular cognitive skills (e.g., attention to detail, visual memory). This book helps you identify the skill(s) you are using to perform each function. Just as important, the book helps you to make associations to the experiences in your life which involve the same skill. We call this *Making Cognitive Connections* and we draw attention to it throughout the book by designating these *Making Cognitive Connections* sections by the symbol of the brain. In Table 1-1 below, you can see the link between the cognitive skill(s) used to perform the PDA/smartphone functions and the life tasks which also require the same skill(s). Don't feel like you need to memorize this table right now. As you complete the various "Making Cognitive Connections" exercises throughout the book, you may find it useful to refer back to this table to help generate examples of activities in your own life.

Table 1-1

Cognitive Skills Used to Perform PDA/Smartphone Functions and the Connections to Other Life Skills

Skill	Definition	PDA Examples	Life Examples
Attention to Detail	Paying attention to all parts of a task, no matter how small	Find the GPS button; put the stylus back into its storage location	Check your writing for typographical errors; find spots on laundry to spray before washing; put your keys back into their storage location
Recognizing Visual Similarities and Differences	Distinguishing elements that are the same (or different) in color, shape, size or position	Distinguish between the Calendar's Day and Week views	Distinguish between two similar but unmatched socks; distinguish between closely sized drill bits
Visual Memory	Storing and retrieving from memory a previously seen image	Identify the Contacts button	Identify the face of your doctor or the corner where you need to turn to go to her office
Visual Organization	Creating meaning by use of such elements as color, pattern, shape, repetition, and the relationships among these elements	Look to bottom section of screen to identify particular calendar view	Notice font styles of chapter or section headings in a book or article; identify page lay-out of medical bills
Memory Cues	Triggers or reminders (e.g., phrases, locations, songs, colors) to help retrieve memories	Identify parts of the Agenda screen so you can recognize it	Identify position of your car in relation to store so you can return to it later; perform hygiene tasks in same order daily to avoid forgetting a step
Memory	Storing and recalling information, events or procedures	Remember the steps necessary to record an appointment	Remember the steps necessary to change a vacuum cleaner filter; remember how to retrieve voicemail messages