

Attention, Planning & Task Completion

- Since Jerry's car accident, he has trouble remembering the steps necessary to do his job, including general garage maintenance, making coffee, and stocking shelves.
- Amy is a capable student who, none-the-less, does not complete assignments or turn completed assignments in on time. She forgets meetings, even those she really has an interest in attending.
- Esther has always been known as a great cook and now gets so confused when she's making meals that she forgets ingredients and adds things that don't belong. The results are embarrassing for her.
- Frank is employed in a business office and is easily distracted by typical ongoing office activity. He starts work assignments enthusiastically, but because he can't stay focused on tasks, finishes them poorly....if at all.
- Cal is a very capable employee and is responsible for maintaining an independent work schedule, sequencing his day and week and organizing and prioritizing his tasks. Because all of these are very difficult for him to do, he doesn't accomplish what is expected of him.
- Everybody in our community knows Pete and also knows he visits the local businesses each day. More and more often, however, we notice him wandering around, confused about where to go. If we tell him the "next" place to visit, he goes there happily. He seems to need a "schedule" of some sort.
- My son's brain does not tell him when he is full at mealtime. Without supervision, he gorges himself with food during lunch.
- A student transitioning to a work environment at a local café continually misses her bus home because she loses track of time and starts her clean-up responsibilities too late. Phone call reminders and paraprofessional visits embarrass her, irritate her employer and take up valuable staff time.
- Andy is a particularly active and "busy" child and needs frequent reminders to stay seated during classroom activities.

Assistive technology solutions are available for individuals who have problems in the areas of attention, planning and task completion and apply to areas such as: distraction, remembering multiple sequences, organization, and time management.

Aids for Distraction

Frequently, small changes can significantly reduce distractibility. Equipment with numerous controls and multiple functions may be confusing for some people. Shields and color codes placed on those controls that are not required for individual use are helpful. Creating a partially enclosed cubicle by placing partitions around an individual's workstation can effectively eliminate visual distractions.

The distraction of office noise can be reduced by turning equipment off when it is not in use or by closing the door to those areas. Earphones providing the wearer with a masking noise can help some individuals block out auditory distractions when they need to focus on an activity. **FM Systems** or auditory feedback devices (with earphones), on the other hand, improve focus and concentration by enhancing a speaker's voice so that it is more obvious than less important background noises.

Phones

Phones which can be programmed to speed dial by activating a button reduces the need to remember sequences of numbers. Some phones, such as the **Photo Phone**, have large speed dial buttons which have spaces for symbols or photos of those whose numbers have been programmed. This feature also is useful for people who read with difficulty or who experience memory-related problems.

TeleTypewriters (TTYs) are small terminal type devices with keyboards and visual displays, and in some models, printers. Although designed for people with hearing and speech difficulties, TTYs have been used successfully by others to manage the give and take of conversations. They aid in memory and allow for delayed reaction time by providing a digital/text display of the phone conversation. Printouts provide a written copy of the information exchanged for a person to review at a later time or as often as necessary.

Task Organizers

By transmitting a beep or a vibrating alert, a wireless **Personal Pager** can be used by a supervisor or teacher to remind a person to attend to task, to move on to the next activity, or to look up at the speaker. Another option for people who have problems remembering the sequence of steps in tasks is the use of audio tapes. Tasks and instructions can be broken into steps and taperecorded. Then, through earphones and a tape player, an individual can use the pre-recorded information to guide them through activities or for repetitions as often as necessary to accomplish the tasks. Tape recorders can be a means to repeat, reinforce, review, and remember.

Other devices can be programmed to speak and provide a visual display of the steps required to finish specific tasks. The **Pocket Coach** is such a device and also can be programmed to provide a reward at the push of a button

when tasks are completed.

Hand-held microcomputers, such as the **Palm Pilot**, combine touch screen capability enabling someone to easily input, save, and retrieve notes, phone numbers, dates and daily reminders. A built-in calendar displays the entire month at a glance while cursor controls allow scrolling from day to day or month to month.

More complex systems can serve as prompters to help individuals compensate for distractibility and short term memory issues. Components of the **Tickle Box**, for example, include computer software and a portable paging device. It creates good self management habits by prompting the person at the moment something needs to be done. The Tickle Box does this by relaying reminder messages from a computer based reminder list to a commercial paging carrier...which in turn relays the message to the individual's prompter in the school, job site or community. These devices can reduce paraprofessional supervision by providing reminders to pay attention or to go to physical therapy pull out services, and can provide direction and guidance. For example, one that has been programmed to send a "time to clean up" message to someone who has difficulty with sequencing tasks at a work site and 10 minutes later sends a message to "Go to the bus". As a result, this worker no longer misses the bus and feels more responsible.

For the purpose of task organization, outlining and semantic mapping software programs are available. **Inspiration** software, for example, is a computer-based program that allows the user to diagram tasks or ideas and then make connections between them. These 'idea maps' can then be transformed into a schedule or outline and printed out. This provides a ready reference to enable successful completion of a task by the user, as well as providing a means to actively participate in the sequencing and planning.

For individuals requiring external prompting to remind them of critical appointments or activities there are devices such as the **Neuro Page**. This device consists of a computer with preprogrammed messages and times and a beeper that signals the message. The beeper, carried by an individual, beeps and provides the reminder to go to an appointment or engage in an activity at the appropriate time. This allows individuals to cue themselves at any time in any place. Users do not have to worry about mastering complicated equipment. Prompts are transmitted to their pagers automatically and are simply read on the screen or listened to via the prompt. The times and prompts may be unique or repeating, based on the users needs. This type of device could be programmed to remind a student to attend extra-curricular activities and to organize homework materials prior to leaving the school grounds, enabling the student to actively participant in activities and to complete assignments on time with a greater degree of independence.

Time Management Aids

With training to support the use of personal calendars and daily planners, many individuals are able to sufficiently and independently manage time and complete tasks. Other simple solutions include portable timers, alarm clocks, and wrist watches with alarm capability which can be set to ring when a task needs to begin, to finish, or to change.

Special devices have been designed to address attention training. A device called the **SEATS Training System** allows a person to simply sit on a pressure sensitive switch that is attached to a feedback box. When the individual moves off the seat, a light on the box turns “on” and an alarm sounds. This device can also be used as a bed alarm that sounds if a person leaves the bed when it is unsafe for them to do so. Another version is the **SEATSPi** which has the added ability to turn on a reward.

Computers can be effective tools to compensate for attention, planning, and task completion difficulties. Time management software such as daily planners organize daily and monthly activities and can provide printed copies for an individual. Computer tutorials are effective in presenting training in short increments which can be repeated and reviewed as often as necessary. Carefully selected software which is multi-sensory, individualized, reinforcing, and motivating provides necessary predictability and routine for individuals with hidden disabilities.

Several more complex options that go beyond the paper notebook and computer-based day planner are available to assist in managing time and tasks. One example is an electronic calendar and address book called **the Planning & Execution Assistant & Trainer, PEAT™**. Through the use of artificial intelligence, this planner automatically adjusts schedules when tasks are delayed, interrupted or canceled. As a hand-held computer, PEAT™ cues the individual when to start, stop and alter tasks. The user, family member or support person enters the pertinent schedule information and PEAT™ takes it from there.

Things you can do to make life easier...

- Post an outline of daily job tasks on a single sheet of paper, perhaps using symbols, pictures, or maps rather than printed words
- Arrange materials for a task in the order in which they will be used, such as setting out clothes for the day in the order in which they need to be put on (underclothes, shirt, pants, socks, shoes)
- Establish clear guidelines that vary little from day to day
- Simplify and reduce the number of choices, eliminating the possibility of

“wrong” choices

- Reduce the actual number of tasks, by limiting the number of steps or by breaking them into smaller and more clearly defined steps
- Reduce the environmental clutter