



Wisconsin's Traumatic Brain Injury (TBI)
Statewide Task Force/Network

Memory Module

A Training Module for Parents and
Educators of Children Who Have
Experienced a Traumatic Brain Injury



Funded by an IDEA Discretionary Grant
2006-9911-22 through the
Wisconsin Department of Public Instruction
(<http://www.dpi.wi.gov>)

Wisconsin Traumatic Brain Injury Initiative

The Wisconsin TBI Initiative is funded through a DPI discretionary grant that provides comprehensive support, guidance and training for all working with children with TBI. A statewide task force has developed materials, training sessions, and formed collections of resource materials. Through DPI discretionary funds, these services/programs are provided to all school districts in Wisconsin.

Acknowledgments

We would like to acknowledge the efforts of several groups and individuals who provided valuable assistance in the development of these materials.

A special thank you to Kathy Wanat, CESA 6; Kim Swenson, CESA 11; Angie Ricci, CESA #11; Judy O’Kane, Wisconsin Department of Instruction project consultant; and Therese Canfield, project coordinator for their extra efforts.

We wish also to acknowledge the feedback and suggestions of the Wisconsin CESA TBI Network, made up of representatives from each CESA. Their suggestions, based on use of the training materials and consultation activities, help ensure the materials were responsive to the needs of teachers, parents, and students with brain injury. These CESA Trainers include:

CESA 1	Chris Finne, Diane Sims
CESA 2	Marie Dorie, Rosemary Gardner
CESA 3	Niki Schermacher
CESA 4	Colleen Mulder
CESA 5	Diane Hatfield, Jo Ellen Waddell
CESA 6	Kathy Wanat
CESA 7	Dan Konop
CESA 8	David Nass
CESA 9	Beverly Lonsdorf
CESA 10	Carolyn Christian
CESA 11	Therese Canfield, Kim Swenson
CESA 12	Laura Comer

University of Wisconsin – Madison Dr Julia McGivern, TBI Initiative Consultant

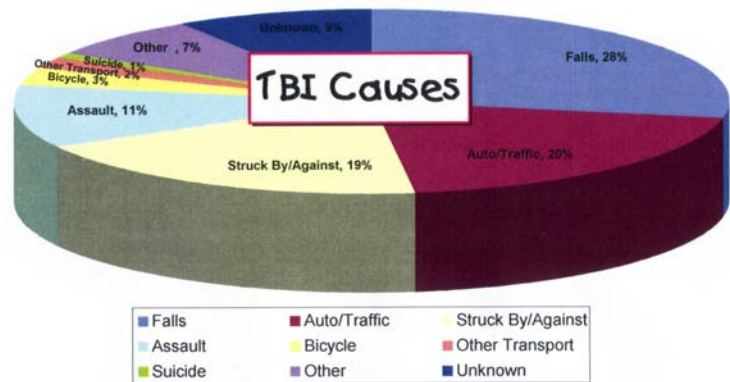
Finally, we acknowledge the many students, families, and teachers who have helped us all learn about meeting the needs of students with TBI.

TABLE OF CONTENTS

Introduction	page 4
• What is Memory?	
• How Does Memory Work?	
• What are the Types of Memory?	
How Does a Traumatic Brain Injury Affect Learning and Memory?.....	page 7
What Does Research Say?.....	page 9
What Happens When a Student’s Memory Skills are Disrupted?.....	page 10
What Resources are Available to Address Memory in School?.....	page 11
Application of Knowledge.....	page 18
Bibliography.....	page 21
Appendices.....	page 23
Appendix A (Charts and Forms)	
• Sensory Memory Types	
• TBI Memory Checklist	
• Memory Strategies	
• TBI Accommodations and Modifications (Elementary)	
• TBI Accommodations and Modifications (Secondary)	
• Problem Identification/Intervention Worksheet	
• Problem Identification/Intervention Worksheet- Remy	
Appendix B (Additional Resources)	
• TBI CESA Trainers List	
• TBI Kit	
• Level I Training	
• Website Links	

INTRODUCTION:

1.4 million people sustain a traumatic brain injury (TBI) in the United States each year. The two groups at highest risk are 0 to 4 year olds and 15 to 19 year olds (Center for Disease Control Report, 2006). One in twenty-five students will experience a brain injury prior to high school graduation.



Brain injuries cause specific learning problems that educators need to understand in order to address student needs. When attention, concentration and memory are disrupted by brain injury a child's academic work is adversely affected because he is unable to connect new learning to prior knowledge.

The majority of students with traumatic brain injury have memory deficits. A common memory deficit is amnesia or the inability to remember. There are two types of posttraumatic amnesia that students with TBI may incur. Retrograde amnesia is the inability to remember events that happened before the injury. An example would be a student who doesn't remember being hit on the boards during a hockey game. His first memories may be of sitting on the bench with the coach after being taken off of the ice. Anterograde amnesia is the inability to store new memories. You may see this in students who know how to complete their math work in school but do not remember how to do it once they get home. Anterograde amnesia is one of the most debilitating effects of TBI; the inability to form new memories adversely affects school participation and performance.

What is Memory?

Memory is the ability to store, retain, and subsequently recall information. It is the process of organizing and storing representations of events and recalling these representations to consciousness at a later date. (Savage and Wolcott, 1995) A well-functioning memory is necessary for learning to occur.

How Does Memory Work?

The three steps to memory functioning are:

Acquisition – Before something can be remembered it must first be learned. This is called acquisition. This acquired information is then put into temporary short-term memory also called working memory.

Consolidation – Information moves from short-term memory to long-term memory in a process called consolidation. This process can take weeks or even months and involves strengthening and reinforcing the memories through retrieval and use.

Retrieval – When people retrieve information, they are literally “recalling” it from the nerve pathways. The brain reactivates a particular pathway, and information is remembered. This process can be fast or slow, depending on how familiar you are with the information and how well you learned it in the first place.

What are the Types of Memory?

Memory can be broken down into three types:

Sensory – Sensory memory is the immediate, very brief – **less than one second** – automatic perception information. This information is obtained through our senses – vision, hearing, smell, taste, and touch.

Short-Term – Short-term memory, also known as working memory, is temporary storage – **less than a minute** – of information that may be needed and used later. An example of short-term memory would be remembering a telephone number between the time you look it up in the phone book and dial it on the telephone. If information in short-term memory is not used, it is not retained.

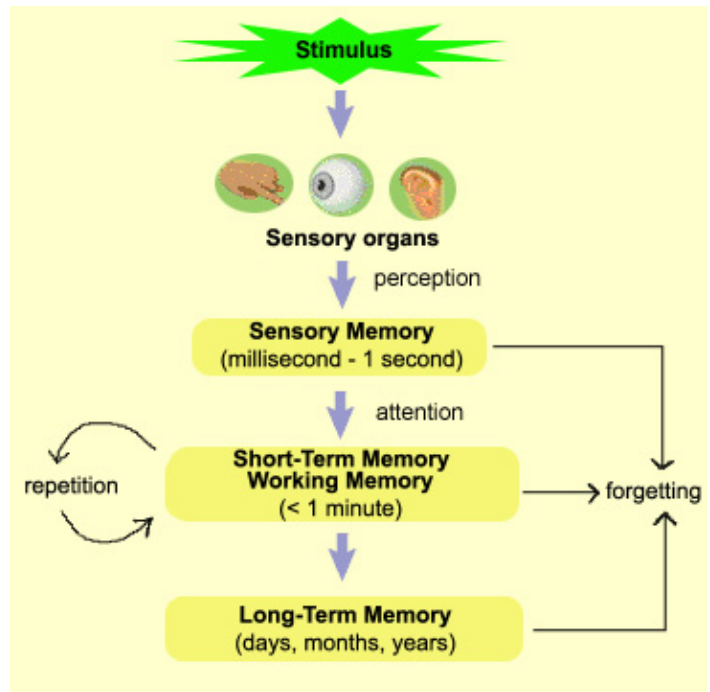
Short-term memory has limited capacity – in general you can retain five to nine items in short-term memory.

Long-Term – Long-term memory stores information that your brain retains because it is important to you. The processes involved in long-term memory are:

- *Encoding* – translating incoming information into a mental image that can be stored in memory
- *Storage* – a process of holding information in your memory
- *Retrieval* – remembering something you want when you need it

The amount of time this information is available for retrieval may vary from days to years. Lots of information that has been stored briefly in short-term memory is never transferred to long-term memory.

The following chart identifies each memory type and gives a brief definition followed by an example.



http://thebrain.mcgill.ca/flash/i/i_07/i_07_p/i_07_tra/i_07_p_tra.html

of

Sensory Memory

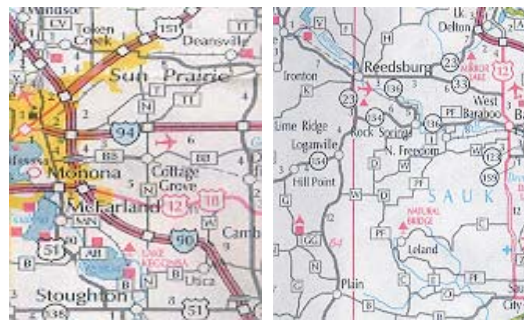
Types

Memory Type	Definition	Examples
Sensory	All memory starts as sensory input from the environment. This includes sight, sound, touch, movement, smell, taste and position. The majority of sensory information is disregarded. Only information that is most important to us remains.	<ul style="list-style-type: none">• Sunlight coming in the window• Sound of the wind• The feel of clothes on your body• The smell of evergreen trees
Short-Term	The ability to hold information for a short period of time	<ul style="list-style-type: none">• Remembering locker combination• Remembering cell phone number
Long-Term	Mechanism that preserves knowledge, skills and life experiences	<ul style="list-style-type: none">• Log in process to your computer• Class schedule• Your date of birth• Rules of game• Steps needed to solve a division problem

Wisconsin Traumatic Brain Injury Initiative (2006)

HOW DOES A TRAUMATIC BRAIN INJURY AFFECT LEARNING AND MEMORY?

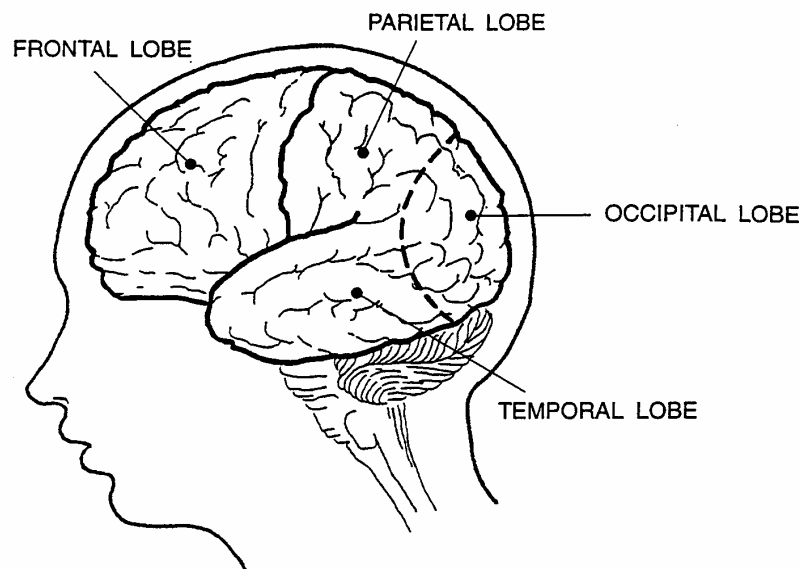
No one area of the brain works in isolation from others. Components of the brain communicate with other and work together. Neurons in the brain function like roads on a map. When there are lots of roads it is easier and quicker to get from one place to the next. After brain injury, connections in the brain can be damaged or destroyed making information travel slower from place to place. Sometimes connections can no longer be made.



Fred Theye, Ph.D

the
each
of
to the
may
can

To understand how a brain injury adversely affects memory, it is important to know how specific areas of the brain contribute to learning.



North Carolina Department of Public Instruction

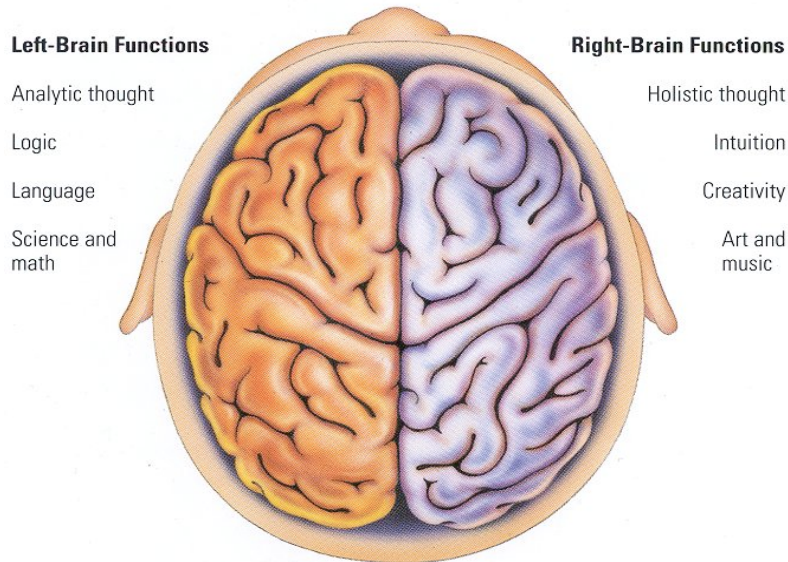
The **frontal** lobe is responsible for executive functions such as planning, initiation, inhibition and self-monitoring.

The **temporal** lobe's primary function is to process auditory information. It is the center for both expressive and receptive language. It is also an area of the brain that contributes to memory.

The **occipital** lobe is responsible for processing visual stimuli.

The **parietal** lobe receives information from the environment regarding touch, temperature, pain, and body position. This part of the brain receives information from sensory and motor stimuli and then integrates and processes the information to provide spatial awareness.

Left and Right Brain Functions



http://www.sruweb.com/~walsh/left_right_brain.jpg

Left and Right Brain Functions:

Left hemisphere – responsible for language activities, reading, writing and comprehension

Right hemisphere – impacts spatial skills and social perception

In addition to the location of the brain injury, the age of the student at the time of injury and current stage of recovery are additional factors to review when determining the impact on memory and intervention strategy selection.

Teachers need to determine how concrete or abstract an intervention strategy should be, based on age and stage of recovery.

- **Stage of Recovery:** A student in the early stages of recovery may need memory intervention strategies for basic needs or temporary issues (providing schedule, and school layout memory aides).
A student in the later stages of recovery may need strategies that can be incorporated into lifelong skills (providing organizational or problem solving strategies/external aides).
- **Age:** Disrupted memory due to brain injury can be very significant for all ages; however the impact on young children can be especially devastating because, unlike adults, they do not have an extensive knowledge base upon which to draw. Young children, severely injured children and those in early stages of recovery may benefit most from memory prompts that are concrete, simple and use external cues.

For older students the inability to remember can cause not only academic difficulties but devastating social implications as well. These students may benefit from strategies that consider social skills and well as academics.

WHAT DOES RESEARCH SAY?

- “Environment modification may decrease the need for retrieval of specific information from memory.” *Rehabilitation of Adult Child with TBI*, 3rd Edition, Ed. M. Rosental, E.R. Griffith, J.S. Kreutzer, B. Pentland, 1999.
- Memory deficits are frequently found in children with TBI. Research (Delis et al., 1994; Roman et al., 1998) shows that decreased memory, especially in the areas of verbal learning and verbal memory are often found in children with TBI.
- Difficulties with delayed recall, maintaining information over time and decreased use of efficient learning strategies were also found (Yeats and Taylor, 1997). These deficits often persist following recovery.
- According to Finkelstein, Corso, and Miller, et al., (2006) about 40% of those hospitalized with a TBI had at least one unmet need one year after injury. The need most frequently voiced by teachers and parents were improving memory.
- Kennedy and Coelho (2005) describe metamemory as having 3 parts:
 1. realizing you have skill deficit (self-awareness),
 2. understanding you won't “remember” needed information at a given time (self monitoring),
 3. creating or using a strategy to assist (self control).
- Providing students with strategies does not guarantee that they'll select appropriate strategies for a given task or use it at the right time to make decisions. Individuals need to acknowledge they have memory impairment and need strategies. Mary Kennedy (2006) describes this as metamemory--“thinking about your memory.”(p.9).

WHAT HAPPENS WHEN A STUDENT’S MEMORY SKILLS ARE DISRUPTED?

Some typical examples of memory deficits a student with a TBI may experience are:

- An inability to retain information from day to day
- Asking the same questions every day
- Difficulty following a routine
- An Inability to follow multi-step directions
- An Inability to remember rules and consequences
- Forgetting classroom materials and assignments
- Remembering previously learned material, but difficulty with new learning

When memory systems are disrupted due to a brain injury, a student needs new strategies so that further learning to take place.

Strategies

Strategies can be used to help compensate for impaired memory.

Types of strategies:

- **“Instructional strategies”** are taught and prompted by teachers. They become “student strategies” when the student is able to independently use them. The goal is to move from a “need to cue” for usage of an external aide to an “internally directed” process. *Example: paraphrasing skills*
- **“Cued recall”** of information is when we make information memorable by actively organizing it. *Example: Reading a passage, then asking or writing questions such as “who was it about?” “Where did it occur?” “When did it occur?” “What happened?”*
- **External memory aides** are instructional strategies such as printed schedules, memory book, lists, mental rehearsing, and picture timelines. *Example: Develop “procedures” or “how to” notebook so students can function as independently as possible when carrying out routine tasks.*

WHAT RESOURCES ARE AVAILABLE TO ADDRESS MEMORY IN SCHOOL?

Before choosing an intervention strategy, it is important to identify the specific areas of memory concern. The TBI Memory Checklist on page 11 can be used as a tool to help identify specific difficulties students are having and how these difficulties affect performance.

TBI Memory Problem Checklist

Student: _____ Grade: _____ Date of Injury: _____
 School: _____ Current Date: _____

Please rate the student’s behavior (in comparison to same-age classmates) using the following rating scale:

- Not at all a problem
- Occasionally a problem
- Often a problem
- Very Severe & Frequent Problem

Not At All A Problem	Occasionally A Problem	Often A Problem	Very Severe & Frequent Problem	
				A. Orientation and Attention to Activity
				Does not remember day, date, personal information such as birth date, phone number, address
				Does not remember to finish task
				B. Starting, Changing, and Maintaining Activities
				Does not remember to start task
				Requires frequent prompts/reminders to continue working on an assignment
				Confused/agitate when schedule changes
				Does not remember when, who or how to ask for assistance when needed
				C. Taking in and Retaining Information
				Does not consistently remember schedule or “what comes next”
				Forgets things that happened (even in the same day)
				Problems learning new information and concepts
				Difficulty remembering simple instructions and rules

Not At All A Problem	Occasionally A Problem	Often aA Problem	Very Severe & Frequent Problem	
				Forgets classroom materials and assignments
				Forgets material learned from day to day (does better on quizzes than unit tests)
				Does not follow through with previously established plans
				D. Language Comprehension and Expression
				Difficulty maintaining the topic of a conversation
				Doesn't remember word meanings/definitions
				Difficulty remembering lengthy discussions
				Struggles to find a specific word
				E. Visual-Perceptual Processing
				Difficulty consistently finding classrooms/areas in the school
				F. Sequential Processing
				Unable to follow through when given multi-step directions
				G. Problem-Solving, Reasoning, and Generalization
				Gives up on challenging tasks if not provided with visual or auditory cues
				Does not use/remember compensatory strategies
				Confused with cause-effect relationships (rules and consequences)

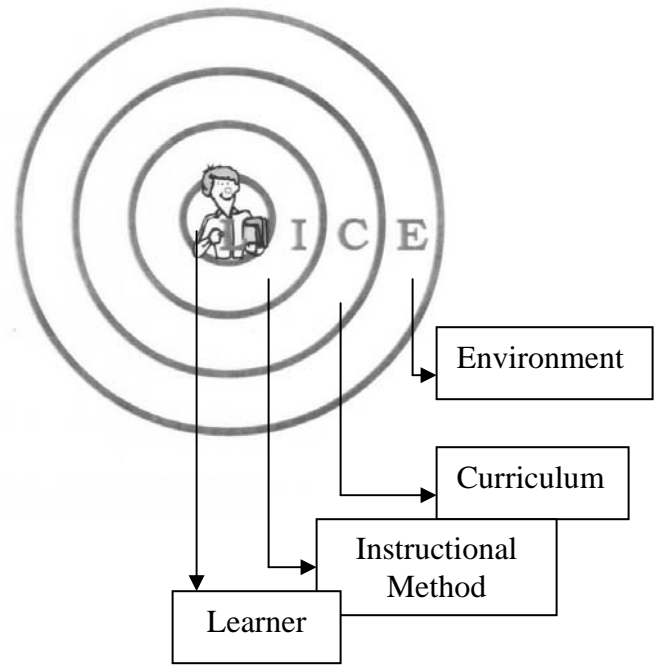
Not At All A Problem	Occasionally A Problem	Often A Problem	Very Severe & Frequent Problem	
				H. Organization and Planning Skills
				Difficulty breaking down complex tasks (pace completion of term pages or projects)
				I. Impulse or Self-Control
				Unable to attend for extended periods of time/losses place
				J. Emotional Adjustment
				Denies memory impairments resulting from injury
				Becomes angry when confronted with memory deficits

Wisconsin Traumatic Brain Injury Initiative (2006)

Note: Once the specific problem is identified, it will be important to determine the targets for intervention.

Children with traumatic brain injury (TBI) have complex and unique learning and behavioral needs. To help teachers design effective interventions, we have adapted the “L-I-C-E” Framework Model taken from “Curriculum Based Evaluation: Teaching and Decision Making by Kenneth W. Howell.

Many factors outside the learner and the brain injury may influence development of a student’s skills. When a student experiences academic and/or behavioral challenges, we typically focus our initial efforts on the learner. The student becomes the primary “target” of our interventions. Ironically, the student is the one variable over which we have the least amount of control. As teachers, we have far more control over our instructional methods, the curriculum and the environment in which we teach. Targeting only the student without also focusing on instructional methods, curriculum and or environmental variables, decreases the likelihood that our interventions will achieve the desired result.



Kenneth W Howell (graphic Wisconsin Traumatic Brain Injury Initiative (2006)

Guidelines for selecting strategies:

After targets are chosen, the appropriateness of specific strategies should be determined. To increase the likelihood of choosing appropriate strategies:

- Involve the student in the selection of strategies.
- Select simple strategies over the more complex.
- Plan strategies for natural environments.
- Directly teach and model strategies to increase student independent use
- Provide rehearsal and practice in natural environments.

After targets are chosen, the appropriateness of specific strategies should be determined. The TBI Memory Strategy Chart located on page 15 will assist you with this task.

Next, review the TBI Accommodations and Modifications Chart on page 16 & 17 for additional classroom support.

Memory Strategies

	Strategies	Examples
Environment “E”	<ul style="list-style-type: none"> ▪ Visual schedules 	<ul style="list-style-type: none"> ▪ Post class rules: wall, desk; adapt class schedule: color code, map of school, pictures of teacher, large print.
	<ul style="list-style-type: none"> ▪ Assignment book ▪ Preferential seating ▪ Sensory awareness 	<ul style="list-style-type: none"> ▪ Date book: color code subject area; PDA: Auditory reminder; To Do List ▪ Near for proximity control and prompting, wall on one side ▪ Reduce classroom decorative clutter; projects hanging from ceiling cover shelves using soft green or blue; lighting: soften lights; olfactory: perfumes may cause nausea
	<ul style="list-style-type: none"> ▪ Modify length of day ▪ Class placement ▪ Peer support 	<ul style="list-style-type: none"> ▪ Start at 9:00 and leave at 2:00; develop consistent routines ▪ Quiet location: classroom not next to music room; highly structured teaching styles ▪ Buddy system, in service to peers about disabilities
Curriculum “C”	<ul style="list-style-type: none"> ▪ Give meaning to rote data ▪ Make it relevant to student ▪ Textbooks 	<ul style="list-style-type: none"> ▪ Verbal cues; link curriculum to interest of student: baseball stats to math concepts ▪ Experiential presentations; relate information to prior knowledge ▪ Multiple textbooks in different locations one at home one in classroom; reduce page clutter
Instruction “I”	<ul style="list-style-type: none"> ▪ Organize information 	<p>Outline format, Graphic organizers, Study guide, Teach note taking skills (fill in the blanks); Highlight relevant information; Chunk information</p>
	<ul style="list-style-type: none"> ▪ Errorless learning ▪ Mnemonic devices ▪ Control information presented at one time ▪ Pacing ▪ Match learning styles with teaching methods ▪ Frequently probe skill acquisition ▪ Demonstrate new tasks 	<ul style="list-style-type: none"> ▪ Provide breaks ▪ Speaking too slowly, speaking too fast, speaking softly, speaking too loudly ▪ Present multi sensory information, use movement associate facts with movement, regularly summarize presentation, alternate passive and active activities ▪ Check for mastery in different environments
Learner “L”	<ul style="list-style-type: none"> ▪ Rehearsal ▪ Use a journal ▪ Color coding ▪ Over learn material ▪ Picture supported material ▪ Focus on one activity at a time 	<ul style="list-style-type: none"> ▪ Practice in different environments ▪ Match symbol system to student abilities

Accommodations & Modifications in the Elementary Classroom For a Student with Traumatic Brain Injury

Student: _____ Teacher: _____ Grade: _____ Today's Date: _____

Presenting Concerns: _____

Birth Date: _____ Date of Injury: _____

Consider Students Environment

- Post class rules (pictures & words)
- Post daily schedule (pictures & words)
- Give preferential seating
- Change to another class
- Change schedule (most difficult in morning)
- Eliminate distractions (visual, auditory, olfactory)
- Modify length of school day
- Provide frequent breaks
- Provide place for quiet time
- Maintain consistent schedule
- Provide system for transition
- Position appropriately
- Explain disabilities to students
- Use color-coded materials

Consider Curricular Content & Expectations

- Reduce length of assignments
- Change skill/task
- Modify testing mode/setting
- Allow extra time
- Teach study skills
- Teach sequencing skills
- Teach visual imagery
- Teach memory strategies
- Write assignments in daily log
- Teach semantic mapping
- Teach peers how to be helpful

Consider Method of Instruction

- Repeat directions
- Increase active participation

Consider Method of Instruction – (Continued)

- Teacher circulate around room
- Provide visual prompts (board/desk)
- Provide immediate feedback (self correcting seat work)
- Point out similarities to previous learning/work
- Use manipulative materials
- Use frequent review of key concepts
- Teach to current level of ability (use easier materials)
- Speak loud or slow or rephrase
- Preteach/Reteach
- Highlight/underline material
- Use peer tutor/partner
- Use small group instruction
- Use simple sentences
- Use individualized instruction
- Pause frequently
- Discuss errors and how they were made
- Use cooperative learning
- Use instructional assistants
- Encourage requests for clarification, repetition, etc.
- Elicit responses when you know student knows the answer
- Demonstrate & encourage use of technology (instructional and assistive)

Consider Student's Behavioral Needs

- Teach expected behavior
- Increase student success rate

Consider Student's Behavioral Needs – (Continued)

- Learn to organize signs of stress
- Give non verbal cues to discontinue behavior
- Reinforce positive behavior (4:1)
- Use mild, consistent consequences
- Set goals with student
- Use key students for reinforcement of target student
- Use group/individual counseling
- Teach student to attend to advance organizers at beginning of lesson
- Provide opportunity to role play
- Use proactive behavior management strategies
- Use schoolwide reinforcement with target students

Consider Assistive Technology

- Adaptive paper
- Talking spell checker/dictionary
- Concept mapping software/templates
- Magnetic words, letters, phrases
- Multimedia software
- Keyguard for keyboard
- Macros/shortcuts on computer
- Abbreviations/expansion
- Accessibility options on computer
- Alternative keyboards
- Communication cards or boards
- Voice output communication device
- Portable word processor
- Enlarged text/magnifiers
- Recorded text/books on tape/talking books

Consider Assistive Technology – (Continued)

- Scanned text with OCR software
- Voice output reminders
- Electronic organizers/reminders/pagers
- Large display calculators
- Voice input calculators
- Math software
- Picture/symbol supported software

Other Considerations

Home/School Relations

- Schedule regular meetings for all staff to review progress/maintain consistency
- Schedule parent conferences every _____
- Daily/weekly reports home
- Parent visits/contact
- Home visits

Disability Awareness

- Explain disabilities to other students
- Teach peers how to be helpful
- In-service training for school staff

Additional Resources

- Wisconsin Assistive Technology Checklist
- Therapists, nurse, resource teachers, school psychologist, counselor, rehab facility, parents, vision teacher, medical facility

Accommodations & Modifications in the Secondary Classroom For a Student with Traumatic Brain Injury

Student: _____ Teacher: _____ Grade: _____ Today's Date: _____

Presenting Concerns: _____

Birth Date: _____ Date of Injury: _____

Consider Students Environment

- Post class rules (pictures & words)
- Post daily schedule (pictures & words)
- Give preferential seating
- Change to another class
- Change schedule (most difficult in morning)
- Eliminate distractions (visual, auditory, olfactory)
- Modify length of school day
- Provide frequent breaks
- Provide place for quiet time
- Maintain consistent schedule
- Move class site to avoid physical barriers (stairs)
- Provide system for transition
- Position appropriately
- Explain disabilities to students
- Use color-coded materials

Consider Curricular Content & Expectations

- Reduce length of assignments
- Change skill/task
- Modify testing mode/setting
- Allow extra time
- Teach study skills
- Teach sequencing skills
- Teach visual imagery
- Teach memory strategies
- Write assignments in daily log
- Develop objective grading system using daily participation as a percentage of weekly and final grade
- Teach semantic mapping
- Teach peers how to be helpful

Consider Method of Instruction

- Repeat directions
- Increase active participation
- Teacher circulate around room
- Provide visual prompts (board/desk)
- Provide immediate feedback (self correcting seat work)
- Point out similarities to previous learning/work
- Use manipulative materials
- Use frequent review of key concepts
- Teach to current level of ability (use easier materials)
- Speak loud or slow or rephrase
- Preteach/Reteach
- Highlight/underline material
- Use peer tutor/partner
- Use small group instruction
- Use simple sentences
- Use individualized instruction
- Pause frequently
- Discuss errors and how they were made
- Use cooperative learning
- Use instructional assistants
- Encourage requests for clarification, repetition, etc.
- Elicit responses when you know student knows the answer
- Demonstrate & encourage use of technology (instructional and assistive)

Consider Student's Behavioral Needs

- Teach expected behavior
- Increase student success rate

Consider Student's Behavioral Needs – (Continued)

- Learn to organize signs of stress
- Give non verbal cues to discontinue behavior
- Reinforce positive behavior (4:1)
- Use mild, consistent consequences
- Set goals with student
- Use key students for reinforcement of target student
- Use group/individual counseling
- Provide opportunity to role play
- Use proactive behavior management strategies

Consider Assistive Technology

- Talking spell checker/dictionary
- Talking word processing software
- Concept mapping software/templates
- Word prediction software
- Multimedia software
- Keyguard for keyboard
- Macros/shortcuts on computer
- Abbreviation/expansion
- Accessibility option on computer
- Screen reader software
- Alternate keyboards
- Voice recognition software
- Communication cards or boards
- Voice output communication device
- Adaptive paper
- Single word scanners
- Enlarged text/magnifiers
- Recorded text/books on tape/e-text/ipod/MP3 player
- Scanned text with OCR software

Consider Assistive Technology – (Continued)

- Voice output reminders
- Electronic organizers/PDA's/Palm computers
- Pagers/electronic reminders
- Large display calculators
- Talking calculators
- Voice input calculators
- Math software
- Portable word processor
- Picture supported software

Other Considerations

Home/School Relations

- Schedule regular meetings for all staff to review progress/maintain consistency
- Schedule parent conferences every _____
- Daily/weekly reports home
- Parent visits/contact
- Home visits

Disability Awareness

- Explain disabilities to other students
- Teach peers how to be helpful

Additional Resources

- Wisconsin Assistive Technology Checklist
- Therapists, nurse, resource teachers, school psychologist, counselor, rehab facility, parents, vision teacher, medical facility

APPLICATION OF KNOWLEDGE

Provided below is a “case study” of a student identified with a traumatic brain injury. After you read this information, apply the knowledge you have learned in this module to complete the Problem Identification/Intervention Worksheet.

Case Study:

Remy is a 12 year old male who was hit by a car while skateboarding on the street in front of his home. He was not wearing a helmet at the time of the accident. After the impact, he was thrown 20 feet, landing in a field. He was unconscious for approximately 30 minutes. Medical reports from the emergency room indicated frontal and left temporal lobe injuries. In addition to the closed head injuries, Remy also sustained a fractured left humerus and numerous skin lacerations on the left side of his body.

When Remy gained consciousness he recognized his family, but did not remember any events of the preceding day. He remained confused about the details and asked about them several times. He experienced a few days of confusion and irritability; then, according to his mother, he seemed to “come around”, and was more like himself. The doctor told Remy’s mother his prognosis was very good. Remy was hospitalized for 4 days and spent two weeks recovering at home, including receiving out-patient OT therapy. He returned to his regular classroom three weeks after the accident.

Prior to the accident, Remy was a good student, getting mostly B’s and C’s in his classes. He had many friends and was very active in sports. Since the accident, he is expressing frustration over the difficulties he is having keeping up with his friend while riding his bike. He also is frustrated that he cannot perform at the same level of skateboarding that he had achieved prior to the accident. Due to the traumatic brain injury, Remy is currently in special education, receiving speech/language two times a week during his study hall period. He is attending all of his classes in the general education classroom.

Remy has been back in school fulltime in the regular education classroom for 2 weeks and is experiencing memory difficulties. For example, he has difficulty remembering specifics about events earlier in the day and week, even though he remembers a lot about his life before the accident. Remy is not completing his homework; he states this is due to headache and fatigue. The teacher is noticing that he is having difficulty learning new material. She is wondering if he is lacking motivation or if something else is going on. He also has difficulty starting assignments. Planning for events, assigned tasks or classroom activities is sporadic and uneven. Some days he seems to do quite well and on other days, he seems unable to focus and attend to activities around him. Some days, Remy is unable to recall vocabulary for material learned on a previous day.

Remy is not interacting with his classmates as he did prior to the accident and spends much of his free time alone both at school and at home. One day at recess Remy was teased because he could not remember his class mates’ names. He often has verbal outbursts during independent study hall and then is unable to tell the study hall teacher why he is frustrated.

Remy's grades are currently mostly C's, D's and F's and his classroom teachers have asked the special education director for a meeting to discuss their concerns. None of Remy's teachers have worked with a student who has sustained a traumatic brain injury. Remy's parents are hopeful that the school will help Remy become his old self.

Activity:

Using resources and information from this guide complete the following:

1. Create a reflective needs profile (*Appendix A*)
 - TBI Memory Checklist
 - Accommodations and Modifications in the Elementary Classroom
 - Accommodations and Modifications in the Secondary Classroom

2. Complete an action plan (*Appendix A*)
 - Memory Strategies Chart
 - Problem Identification/Intervention Worksheet

When selecting strategies it is important to involve the student and select strategies that are acceptable to parent and teachers. The most successful strategies will be those that are built on what the student already does. Simple strategies should be tried before complex strategies; be sure to select strategies that will work in the targeted environment. Considerations should address specific problems that a student with a TBI may encounter including, but not limited to: memory, executive functions, reasoning, language, academic skills, social emotional, physical health and safety, vision, hearing, and orientation/attention. Educators, students and parents have many strategies available to them once they understand how a traumatic brain injury may affect learning and behavior.

**** Sample completed Problem Identification/Intervention Worksheet provided at the end of Appendix A*

Problem Identification/Intervention Worksheet

Problem:	
Link to Brain Injury:	
Student Strengths/Interests:	
Previous Interventions:	
Goal/Desired Outcome:	
Targets: Who: Timelines:	
Strategies:	
Evaluation:	

Bibliography

Memory module

Brain Injury Association <http://www.biausa.org>

Canadian Institute of Health Research
http://thebrain.mcgill.ca/flash/d/d_07/d_07_p/d_07_p_tra/d_07_p_tra.html

CDC Report: Traumatic Brain Injury in United States Emergency Department Visits, Hospitalizations, and Death (2006). www.cdc.gov/ncipc/pub-res/TBI_in_US_04/TBI_ED.htm

Corbett, S.L., & Ross-Thomson, B. (1996) *Educating students with traumatic brain injuries: A resource and planning guide*. Madison, WI Wisconsin Department of Public Instruction.

Finkelstein, E., Corso, P., and Miller, T., et al. *The Incidence and Economic Burden of Injuries in the United States*. New York (NY): Oxford University Press 2006.

Florida Department of Education. (1993). *What We Know About Educating Students with Traumatic Brain Injury*. Tallahassee, FL: Florida Department of Education

Howell, Kenneth W. (1999). *Curriculum-Based Evaluation: Teaching and Decision Making*. Bibra Lake, WA: Wadsworth Publishing

Kennedy, M. (2006, Oct. 17). *Managing memory and metamemory impairment in individuals with traumatic brain injury*. The ASHA Leader, 11(14), 8-9, 34-36.

Kennedy, M and Coelho, C. (2005). *Self-regulation after traumatic brain injury: A framework for intervention of memory and problem solving*. Seminars in speech and language, 26, 242-255.

North Carolina Department of Public Instruction. (1997). *Best practices in assessment and programming for students with traumatic brain injuries*. Raleigh, NC: Author

Savage, Ronald C. & Wolcott, Gary F. (1995). *An Educator's Manual: What Educators Need to Know about Students with Brain Injury*. Washington, DC: Brain Injury Association, Inc.

Savage, R. C. & Wolcott, G. F. (Eds). (1994). *Educational Dimensions of Acquired Brain Injury*. Austin, TX: Pro-ed

Tampa General Rehabilitation Center. (1997). *Brain Injury: A Home Based Cognitive Rehabilitation Program*. Houston, TX: HDI Publishers

Theye, Fred PHD. TBI Project Presentation, Chippewa Falls, 2000

Utah State Office of Education. (1996) *Guidelines for Serving Students With Traumatic Brain Injuries*, Salt Lake City, UT

Wisconsin Traumatic Brain Injury Initiative (2006)

Wolcott, Gary, Lash, Marilyn, & Pearson, Sue. (1995). *Signs and Strategies for Educating Students with Brain Injuries; A Practical Guide for Teachers and Schools*. Houston, TX: HDI Publishers

Appendix A

Sensory Memory Typespage 2

TBI Memory Checklistpage 3

Memory Strategiespage 4

TBI Accommodations & Modifications (Elementary)page 5

TBI Accommodations & Modifications (Secondary)page 6

Problem Identification/Intervention Worksheetpage 7

Problem Identification/Intervention Worksheet – Remypage 8

Sensory Memory

Types

Memory Type	Definition	Examples
Sensory	All memory starts as sensory input from the environment. This includes sight, sound, touch, movement, smell, taste and position. The majority of sensory information is disregarded. Only information that is the most important to us remains.	<ul style="list-style-type: none">• Sunlight coming in the window• Sound of the wind• The feel of clothes on your body• The smell of evergreen trees
Short-Term	The ability to hold information for a short period of time	<ul style="list-style-type: none">• Remembering locker combination• Remembering cell phone number
Long-Term	Mechanism that preserves knowledge, skills and life experiences	<ul style="list-style-type: none">• Log in process to your computer• Class schedule• Your date of birth• Rules of game• Steps needed to solve a division problem

Wisconsin Traumatic Brain Injury Initiative (2006)

TBI Memory Problem Checklist

Student: _____ Grade: _____ Date of Injury: _____
 School: _____ Current Date: _____

Please rate the student's behavior (in comparison to same-age classmates) using the following rating scale:

- Not at all a problem**
- Occasionally a problem**
- Often a problem**
- Very Severe & Frequent Problem**

Not At All A Problem	Occasionally A Problem	Often A Problem	Very Severe & Frequent Problem	
				A. Orientation and Attention to Activity
				Does not remember day, date, personal information such as birth date, phone number, address
				Does not remember to finish task
				B. Starting, Changing, and Maintaining Activities
				Does not remember to start task
				Requires frequent prompts/reminders to continue working on an assignment
				Confused/agitate when schedule changes
				Does not remember when, who or how to ask for assistance when needed
				C. Taking in and Retaining Information
				Does not consistently remember schedule or "what comes next"
				Forgets things that happened (even in the same day)
				Problems learning new information and concepts
				Difficulty remembering simple instructions and rules

Not At All A Problem	Occasionally A Problem	Often A Problem	Very Severe & Frequent Problem	
				Forgets classroom materials and assignments
				Does not follow through with previously established plans
				Forgets material learned from day to day (does better on quizzes than unit tests)
				D. Language Comprehension and Expression
				Difficulty maintaining the topic of a conversation
				Doesn't remember word meanings/definitions
				Difficulty remembering lengthy discussions
				Struggles to find a specific word
				E. Visual-Perceptual Processing
				Difficulty consistently finding classrooms/areas in the school
				F. Sequential Processing
				Unable to follow through when given multi-step directions
				G. Problem-Solving, Reasoning, and Generalization
				Does not use/remember compensatory strategies
				Gives up on challenging tasks if not provided with visual or auditory cues
				Confused with cause-effect relationships (rules and consequences)

Not At All A Problem	Occasionally A Problem	Often A Problem	Very Severe & Frequent Problem	
				H. Organization and Planning Skills
				Difficulty breaking down complex tasks (pace completion of term pages or projects)
				I. Impulse or Self-Control
				Unable to attend for extended periods of time/losses place
				J. Emotional Adjustment
				Denies memory impairments resulting from injury
				Becomes angry when confronted with memory deficits

Wisconsin Traumatic Brain Injury Initiative (2006)

Memory Strategies

	Strategies	Examples
Environment “E”	<ul style="list-style-type: none"> ▪ Visual schedules 	<ul style="list-style-type: none"> ▪ Post class rules: wall, desk; adapt class schedule: color code, map of school, pictures of teacher, large print.
	<ul style="list-style-type: none"> ▪ Assignment book ▪ Preferential seating ▪ Sensory awareness 	<ul style="list-style-type: none"> ▪ Date book: color code subject area; PDA: Auditory reminder; To Do List ▪ Near for proximity control and prompting, wall on one side ▪ Reduce classroom decorative clutter; projects hanging from ceiling cover shelves using soft green or blue; lighting: soften lights; olfactory: perfumes may cause nausea
	<ul style="list-style-type: none"> ▪ Modify length of day ▪ Class placement ▪ Peer support 	<ul style="list-style-type: none"> ▪ Start at 9:00 and leave at 2:00; develop consistent routines ▪ Quiet location: classroom not next to music room; highly structured teaching styles ▪ Buddy system, in service to peers about disabilities
Curriculum “C”	<ul style="list-style-type: none"> ▪ Give meaning to rote data ▪ Make it relevant to student ▪ Textbooks 	<ul style="list-style-type: none"> ▪ Verbal cues; link curriculum to interest of student: baseball stats to math concepts ▪ Experiential presentations; relate information to prior knowledge ▪ Multiple textbooks in different locations one at home one in classroom; reduce page clutter
Instruction “I”	<ul style="list-style-type: none"> ▪ Organize information 	<p>Outline format, Graphic organizers, Study guide, Teach note taking skills (fill in the blanks); Highlight relevant information; Chunk information</p>
	<ul style="list-style-type: none"> ▪ Errorless learning ▪ Mnemonic devices ▪ Control information presented at one time ▪ Pacing ▪ Match learning styles with teaching methods ▪ Frequently probe skill acquisition ▪ Demonstrate new tasks 	<ul style="list-style-type: none"> ▪ Provide breaks ▪ Speaking too slowly, speaking too fast, speaking softly, speaking too loudly ▪ Present multi sensory information, use movement associate facts with movement, regularly summarize presentation, alternate passive and active activities ▪ Check for mastery in different environments
Learner “L”	<ul style="list-style-type: none"> ▪ Rehearsal ▪ Use a journal ▪ Color coding ▪ Over learn material ▪ Picture supported material ▪ Focus on one activity at a time 	<ul style="list-style-type: none"> ▪ Practice in different environments ▪ Match symbol system to student abilities

Accommodations & Modifications in the Elementary Classroom For a Student with Traumatic Brain Injury

Student: _____ Teacher: _____ Grade: _____ Today's Date: _____

Presenting Concerns: _____

Birth Date: _____ Date of Injury: _____

Consider Students Environment

- Post class rules (pictures & words)
- Post daily schedule (pictures & words)
- Give preferential seating
- Change to another class
- Change schedule (most difficult in morning)
- Eliminate distractions (visual, auditory, olfactory)
- Modify length of school day
- Provide frequent breaks
- Provide place for quiet time
- Maintain consistent schedule
- Provide system for transition
- Position appropriately
- Explain disabilities to students
- Use color-coded materials

Consider Curricular Content & Expectations

- Reduce length of assignments
- Change skill/task
- Modify testing mode/setting
- Allow extra time
- Teach study skills
- Teach sequencing skills
- Teach visual imagery
- Teach memory strategies
- Write assignments in daily log
- Teach semantic mapping
- Teach peers how to be helpful

Consider Method of Instruction

- Repeat directions
- Increase active participation

Consider Method of Instruction – (Continued)

- Teacher circulate around room
- Provide visual prompts (board/desk)
- Provide immediate feedback (self correcting seat work)
- Point out similarities to previous learning/work
- Use manipulative materials
- Use frequent review of key concepts
- Teach to current level of ability (use easier materials)
- Speak loud or slow or rephrase
- Preteach/Reteach
- Highlight/underline material
- Use peer tutor/partner
- Use small group instruction
- Use simple sentences
- Use individualized instruction
- Pause frequently
- Discuss errors and how they were made
- Use cooperative learning
- Use instructional assistants
- Encourage requests for clarification, repetition, etc.
- Elicit responses when you know student knows the answer
- Demonstrate & encourage use of technology (instructional and assistive)

Consider Student's Behavioral Needs

- Teach expected behavior
- Increase student success rate

Consider Student's Behavioral Needs – (Continued)

- Learn to organize signs of stress
- Give non verbal cues to discontinue behavior
- Reinforce positive behavior (4:1)
- Use mild, consistent consequences
- Set goals with student
- Use key students for reinforcement of target student
- Use group/individual counseling
- Teach student to attend to advance organizers at beginning of lesson
- Provide opportunity to role play
- Use proactive behavior management strategies
- Use school wide reinforcement with target students

Consider Assistive Technology

- Adaptive paper
- Talking spell checker/dictionary
- Concept mapping software/templates
- Magnetic words, letters, phrases
- Multimedia software
- Keyguard for keyboard
- Macros/shortcuts on computer
- Abbreviations/expansion
- Accessibility options on computer
- Alternative keyboards
- Communication cards or boards
- Voice output communication device
- Portable word processor
- Enlarged text/magnifiers
- Recorded text/books on tape/talking books

Consider Assistive Technology – (Continued)

- Scanned text with OCR software
- Voice output reminders
- Electronic organizers/reminders/pagers
- Large display calculators
- Voice input calculators
- Math software
- Picture/symbol supported software

Other Considerations

Home/School Relations

- Schedule regular meetings for all staff to review progress/maintain consistency
- Schedule parent conferences every _____
- Daily/weekly reports home
- Parent visits/contact
- Home visits

Disability Awareness

- Explain disabilities to other students
- Teach peers how to be helpful
- In-service training for school staff

Additional Resources

- Wisconsin Assistive Technology Checklist
- Therapists, nurse, resource teachers, school psychologist, counselor, rehab facility, parents, vision teacher, medical facility

Accommodations & Modifications in the Secondary Classroom For a Student with Traumatic Brain Injury

Student: _____ Teacher: _____ Grade: _____ Today's Date: _____
 Presenting Concerns: _____
 Birth Date: _____ Date of Injury: _____

Consider Students Environment

- Post class rules (pictures & words)
- Post daily schedule (pictures & words)
- Give preferential seating
- Change to another class
- Change schedule (most difficult in morning)
- Eliminate distractions (visual, auditory, olfactory)
- Modify length of school day
- Provide frequent breaks
- Provide place for quiet time
- Maintain consistent schedule
- Move class site to avoid physical barriers (stairs)
- Provide system for transition
- Position appropriately
- Explain disabilities to students
- Use color-coded materials

Consider Curricular Content & Expectations

- Reduce length of assignments
- Change skill/task
- Modify testing mode/setting
- Allow extra time
- Teach study skills
- Teach sequencing skills
- Teach visual imagery
- Teach memory strategies
- Write assignments in daily log
- Develop objective grading system using daily participation as a percentage of weekly and final grade
- Teach semantic mapping
- Teach peers how to be helpful

Consider Method of Instruction

- Repeat directions
- Increase active participation
- Teacher circulate around room
- Provide visual prompts (board/desk)
- Provide immediate feedback (self correcting seat work)
- Point out similarities to previous learning/work
- Use manipulative materials
- Use frequent review of key concepts
- Teach to current level of ability (use easier materials)
- Speak loud or slow or rephrase
- Preteach/Reteach
- Highlight/underline material
- Use peer tutor/partner
- Use small group instruction
- Use simple sentences
- Use individualized instruction
- Pause frequently
- Discuss errors and how they were made
- Use cooperative learning
- Use instructional assistants
- Encourage requests for clarification, repetition, etc.
- Elicit responses when you know student knows the answer
- Demonstrate & encourage use of technology (instructional and assistive)

Consider Student's Behavioral Needs

- Teach expected behavior
- Increase student success rate

Consider Student's Behavioral Needs – (Continued)

- Learn to organize signs of stress
- Give non verbal cues to discontinue behavior
- Reinforce positive behavior (4:1)
- Use mild, consistent consequences
- Set goals with student
- Use key students for reinforcement of target student
- Use group/individual counseling
- Provide opportunity to role play
- Use proactive behavior management strategies

Consider Assistive Technology

- Talking spell checker/dictionary
- Talking word processing software
- Concept mapping software/templates
- Word prediction software
- Multimedia software
- Keyguard for keyboard
- Macros/shortcuts on computer
- Abbreviation/expansion
- Accessibility option on computer
- Screen reader software
- Alternate keyboards
- Voice recognition software
- Communication cards or boards
- Voice output communication device
- Adaptive paper
- Single word scanners
- Enlarged text/magnifiers
- Recorded text/books on tape/e-text/ipod/MP3 player
- Scanned text with OCR software

Consider Assistive Technology – (Continued)

- Voice output reminders
- Electronic organizers/PDA's/Palm computers
- Pagers/electronic reminders
- Large display calculators
- Talking calculators
- Voice input calculators
- Math software
- Portable word processor
- Picture supported software

Other Considerations

Home/School Relations

- Schedule regular meetings for all staff to review progress/maintain consistency
- Schedule parent conferences every _____
- Daily/weekly reports home
- Parent visits/contact
- Home visits

Disability Awareness

- Explain disabilities to other students
- Teach peers how to be helpful

Additional Resources

- Wisconsin Assistive Technology Checklist
- Therapists, nurse, resource teachers, school psychologist, counselor, rehab facility, parents, vision teacher, medical facility

Problem Identification/Intervention Worksheet

Problem:	
Link to Brain Injury:	
Student Strengths/Interests:	
Previous Interventions:	
Goal/Desired Outcome:	
Targets: Who: Timelines:	
Strategies:	
Progress Monitoring:	

Problem Identification/Intervention Worksheet

Problem:	Remy does not retain information, e.g. schedule, assignment, names, locations. Remy is especially having difficulty with new learning. This difficulty is affecting Remy at school, at home and in social interactions with his friends and classmates.
Link to Brain Injury:	<ul style="list-style-type: none"> ✓ Memory problems are common with TBI ✓ Frontal lobe brain injuries often result in the student having trouble with organizing their work and focusing attention ✓ Injury to the left side of the brain often results in difficulties with language, writing, and comprehension ✓ Injury to the temporal lobe can result in difficulty processing auditory information and initiating conversation. ✓ Temporal lobe is responsible for forming memories, including new information ✓ Since the TBI is often a “hidden disability” and the ill effects of the accident on the brain cannot be visually seen; educators and parents as well as the student with TBI , often do not realize that difficulties experienced may be directly related to the TBI. ✓ Once information regarding TBI’s affect on learning and behavior has been given to them, educators have many strategies that they can use to address learning difficulties experienced by students with a TBI.
Student Strengths/Interests:	<ul style="list-style-type: none"> ✓ Good Student ✓ Popular with many friends ✓ Participated and active in many team sports ✓ Parents are supportive
Previous Interventions:	Prior to the accident, Remy was a positive participant in the classroom and required no additional classroom interventions. Since the accident, Remy continues to receive out-patient OT and PT and receives Speech and Language two times a week during his school day.
Goal/Desired Outcome:	Remy, his family and his teachers will be given strategies to increase Remy’s ability to retain new information, including new course material in the classroom.
Targets: Who: Timelines:	Remy, his teachers, his family Meet bi-weekly for progress and program revisions
Strategies:	<ul style="list-style-type: none"> ✓ Student-Specific TBI in-service for teaching staff. ✓ Using the Memory Strategy Checklist, select strategies that can be used for Remy; for example, modify the learning environment for Remy so strategies for learning and retaining new material ✓ Use organizer and academic support team classroom at beginning and end of day ✓ Visual cues in his classroom and home ✓ Use teacher communication checklist for accountability and

	<p>classroom activities, including new material that was presented</p> <ul style="list-style-type: none"> ✓ Modification and Accommodations in classroom expectations (shorter assignments, copies of class notes) ✓ Referral to guidance for strategies for social interactions
Progress Monitoring:	<p>Collect baseline and ongoing data to inform your decision making and to evaluate the success of selected strategies/interventions. Data sources might include:</p> <ul style="list-style-type: none"> Checklists Notes from bi-weekly meeting Parent update Student input Systematic observations Teachers notes Daily home school communication records.

Appendix B

WI CESA-Based TBI Consultants page 2

TBI Resource Kit..... page 3

Level I TBI Trainingpage 4

Website Linkspage 5

WI CESA-Based TBI Consultants 2007-08

CESA 1

Diane Sims
19601 W. Bluemound Rd
Brookfield, WI 53045
262-787-9536
dsims@cesa1.k12.wi.us

CESA 1

Chris Finne
19601 W. Bluemound Rd
Brookfield, WI 53045
262-787-9577
cfinne@cesa1.k12.wi.us

CESA 2

Mary Beth Schall
448 E. High Street
Milton, WI 53563-1502
608-838-1015
mbschall@cesa2.k12.wi.us

CESA 2 –

Walworth County

Rosemary Gardner
504 W. Court Street
Elkhorn, WI 54321
262-741-4124
rgardner@co.walworth.wi.us

CESA 3

Niki Schermacher
1300 Industrial Drive
Fennimore, WI 53809-9702
608-822-3276 ext. 236
niki@cesa3.k12.wi.us

CESA 4

Colleen Mulder
923 E. Garland
West Salem, WI 54669
608-786-4848
cmulder@cesa4.k12.wi.us

Memory Module
September, 2007

CESA 5

Diane Hatfield
626 E. Slifer St., P.O. Box 564
Portage, WI 53901
608-742-8814 ext. 287
hatfieldd@cesa5.k12.wi.us

CESA 6

Kathy Tess-Wanat
P.O. Box 2568
Oshkosh, WI 54903
920-236-0577
kwanat@cesa6.k12.wi.us

CESA 7

Dan Konop
595 Baeten Drive
Green Bay, WI 54304
920-617-5634
dkonop@cesa7.k12.wi.us

CESA 8

David Nass
223 West Park Street
Gillett, WI 54124
920-492-5960
dnass@cesa7.k12.wi.us

CESA 9

Beverly Lonsdorf
P.O. Box 449
304 Kaphaem Road
Tomahawk, WI 54487
715-453-2141
TBI@cesa9.k12.wi.us

CESA 10

Carolyn Christian
725 West Park Avenue
Chippewa Falls, WI 54729
715-720-2157
cchristian@cesa10.k12.wi.us

CESA 11

Therese Canfield
225 Ostermann Drive
Turtle Lake, WI 54899
715-986-2020 ext. 2169
theresec@cesa11.k12.wi.us

CESA 11

Julie Betchkal
225 Ostermann Drive
Turtle Lake, WI 54889
715-986-2020 ext. 2185
julieb@cesa11.k12.wi.us

CESA 12

Laura Comer
618 Beaser Avenue
Ashland, WI 54806
715-682-2363 ext. 167
laurac@cesa12.k12.wi.us

DPI

Judy O'Kane
PO Box 7841
Madison, WI 53707
608-267-3748
judy.okane@dpi.wi.gov

UW Madison

Dr. Julia McGivern
Rm 316D, Ed Science
1025 W. Johnson
Madison, WI 53706
608-262-3848
mcgivern@education.wisc.edu

TBI Resource Kit

The Traumatic Brain Injury Resource Kit is a stand-alone traveling library designed to help educators meet the educational needs of students with brain injury. The kit contains a wealth of information to help understanding the effects of brain injury on children's learning and behavior. There are also numerous resources for parents. Each TBI Resource Kit is available to any school district for temporary loan from their CESA. The TBI Resource Kit can be obtained by contacting your CESA TBI consultant.

Kit Contents

- An Educator's Manual: What Educators Need to Know About Students with Brain Injury (book)
- Auditory Processing Activities: Materials for Clinicians and Teachers (book)
- Brain Injury: A Home-Based Cognitive Rehabilitation Program (book)
- Educating Students with Traumatic Brain Injury: A Resource and Planning Guide (book)
- Educational Dimensions of Acquired Brain Injury (book)
- Guidelines for Serving Students with Traumatic Brain Injuries (book)
- Help for Memory (book)
- Help for Word Finding (book)
- Pediatric Brain Injury: The Special Case of the Very Young Child
- Signs and Strategies for Educating Students with Brain Injuries: A Practical Guide for Teachers and Schools (book)
- TBI Resource Kit Information Guide (book)
- BIAW: Statewide Directory, 2001 Edition
- Accommodations & Modifications in the Elementary & Secondary Classroom (worksheet)
- 24 Tip Cards (Sample Packet)
- Assistive Technology Folder – (Resource Guide for Teachers & Administrators, Pointers for Parents and Hey! Can I Try That)
- TBI Information Packet
- Fall Safety Tips for Children

Level I Training Information

Level I TBI Training: A Training Program for Wisconsin Educators

In this workshop, CESA-based TBI trainers provide training to educators and families interested in learning how to meet the educational needs children with traumatic brain injury (TBI). The Level I training consists of six modules designed to improve the educational outcomes for children with TBI. Activities include presentation of information as well as application of concepts. Contact information for the CESA-based TBI trainer in your area who can provide this training is listed within the Resources section on the DPI TBI webpage.

Level I – Agenda			
Day One AM 8:30 – 9:00 Registration 9:00 – 9:30 Overview of TBI Training 9:30 – 12:00 Understanding TBI 12:00 – 12:45 Lunch	Day Two AM 8:00 – 8:15 Questions from Day 1 8:15 – 10:00 Planning to Meet the Needs of Students with TBI 10:00 – 10:15 Break 10:15 – 11:30 Strategies for Specific Problems of Students with TBI 11:30 – 12:15 Lunch		
Day One PM 12:45 – 1:00 Questions from Day 1 1:00 – 3:00 Returning to School 3:00 – 3:15 Break 3:15 – 4:15 TBI Evaluation Planning	Day Two PM 12:15 – 1:30 Providing Positive Behavioral Interventions and Supports 1:30 – 1:45 Break 1:45 – 2:15 Supporting Students with Mild Brain Injury 2:15 – 2:30 Wrap-up		

WEBSITES

<http://www.dpi.wi.gov/sped/tbi..html> Wisconsin Department of Public Instruction

<http://tbi.unl.edu:16080/savedTBI/hux/memstudy.pdf> Using Mnemonics and Visual Imagery Intervention Strategies with TBI Survivors with Persistent Memory Impairments

<http://www.tbimo.org/kathy/archive/memory/strategy.html> **Ask Kathy M. Archives**
A Collection of Questions and Answers from TBI Advice Expert - Kathy Moeller

<http://www.tbindc.org/> Traumatic Brain Injury Model Systems National Data and Statistical Center (TBINDSC).

WWW.THEBRAIN.MCGILL.CA Canadian Institute of Health “The Brain from Top to Bottom”

http://thebrain.mcgill.ca/flash/d/d_07/d_07_cr/d_07_cr_tra/d_07_cr_tra.html Canadian Institute of Health “How Memory Works”

http://www.thebrain.mcgill.ca/flash/i/i_07/i_07_p/i_07_p_tra/i_07_p_tra.html Canadian Institute of Health “Remembering and Forgetting- How Memory Works”

<http://www.intelihealth.com/IH/ih/IH/WSIHW000/31393/31397/347125.html?d=dmContent> Aetna IntelliHealth “Types of Memory”.

<http://en.wikipedia.org/wiki/Memory> Wikipedia

<http://www.mccarrondial.com/> The Perceptual Memory Task kit can be purchased for \$470 (& S/H) from The Mc Carron Dial Systems website

<https://list.nih.gov/archives/tbiserv.html> National Institute of health

<http://www.biausa.org/Hawaii/basic.htm> general memory strategy tips.

www.neuro.pmr.vcu.edu National Resource Center for Traumatic Brain Injury is to provide relevant, practical information for professionals, persons with brain injury, and family members.

<http://www.esc13.net/autism/library/details.php?id=67> head trauma, educational reintegration

<http://www.tbitac.nashia.org/tbics/> Potential resource on TBI strategies

<http://www.tbitac.nashia.org/tbics/> Road to rehabilitation, Brain Injury Association.