

IEP CONSIDERATIONS FOR STUDENTS WITH TBI

These suggestions are intended to assist in addressing IEP requirements for students with TBI. Remember that the IEP is developed to meet the needs of the individual student. Use these suggestions only if they are relevant to the student with whom you are working.

I. STAGES OF RECOVERY *The needs of students and families with TBI often change across their stages of recovery after injury. Below are some of the primary needs of students in early, middle, and late stages of recovery that may need to be addressed in the student's IEP. Remember that a list of common needs is not a substitute for the careful examination of individual needs.*

Early *(soon after injury)*

- Safety of the student is a primary concern.
- The student may be in pain related to a physical injury.
- The student may have medical concerns such as seizures, and appropriate levels of medication may not be determined yet.
- The student may fatigue quickly and easily.
- Often, sensory and sensory-motor difficulties are evident. It is important to create an environment that does not over or under stimulate the student.
- The student may have limited attention and concentration skills for academic tasks.
- Families often need support at this time. They may have difficulty scheduling meetings and balancing competing needs.

Middle *(student skills are still steadily changing)*

- The student may continue to show decreased alertness.
- The student may have an increased level of impulsivity.
- The student may continue to be disoriented during this stage.
- Some concrete academic skills may return, however the student may still experience difficulty with comprehension, problem solving and abstract reasoning.
- The ability to regulate behavior is often impaired at this stage.
- The family's concerns may change as the student's needs become more evident.

Late *(student skills and needs have become more stable and predictable)*

- The student may continue to experience a delay in the ability to receive, process and respond to information.
- The student may have difficulty processing large amounts of information.
- Distractibility is still an issue.
- Weak cognitive and behavioral self-regulation impacts on social skills.
- Depression is a common concern during this time (particularly for adolescents).
- Identify the concerns of the family at this stage.

Many deficit areas continue to need attention across all three levels of recovery.

II. GENERAL IEP CONSIDERATIONS

A. Safety: Is there a need to consider

- health care needs (e.g., medication management)?
- emergency procedures (e.g., evacuation for fire and tornado drills)?
- general safety procedures (e.g., level of supervision on playground, in hallway)

B. Schedule: Is there a need to

- adjust the student's schedule (e.g., length of classes, time of day)?
- incorporate breaks and or study halls into the schedule?
- explore opportunities for extra curricular/recreational activities?
- review need for extended school year services if appropriate?

C. School environment: Is there a need to

- address environmental issues (e.g., noise levels, amount of activity, number of changes/transitions)?
- accommodate for physical barriers and mobility issues?

D. Classroom instruction: Is there a need to

- modify instructional materials (e.g., large print, color, reduced content per page)?
- adapt instruction (e.g., use computer assisted instruction, books on tape)?
- include aids (e.g., computer, calculator, tape recorder)?
- adjust schoolwork expectations (e.g., quality, length, level of independence)?
- develop a cuing system (e.g., repetition, written/visual schedule, assignment notebook)?

E. IEP Review: Is there a need to

- incorporate frequent IEP review as student recovery progresses or new needs arise?

F. Other areas. Is there a need to

- address assistive technology needs (low and high tech)?
- provide transportation?
- consider alternate statewide assessment (in the applicable grades)?

G. Additional general IEP considerations not covered above

H. Consider the student's family. Usually, families of students with TBI are under great stress following the student's injury. This may influence their needs and their participation in the IEP development, particularly the first IEP following the injury. For example, parents may need additional time or a copy of evaluation reports after determination of eligibility and before developing the IEP. What are other ways you can assist and support their participation as IEP team members?

I. What are the MAJOR issues you need to address in the IEP at this stage after the student's TBI? (Remember that the major needs of students with TBI vary across stages of recovery. Often, early after the injury, the student's safety, physical/health needs, and psychosocial needs must be addressed before the student is ready to focus intensively on academics.)

III. SPECIFIC CONSIDERATIONS IN IEP DEVELOPMENT (*Remember: a list of specific considerations is not a substitute for careful examination of individual needs.*)

A. Physical/Health

1. Does the student demonstrate needs in the following areas?

- safety (e.g., due to poor motor planning, decreased judgment, impulsivity)
- some physical/medical procedures need to be performed at school (e.g., tube feeding, catheterization)
- medication management
- generally reduced motor response time
- fatigue

2. Identify the parents' concerns in this area

B. Cognitive

1. Does the student demonstrate needs in the following areas?

- decreased attention/concentration
- decreased memory
- difficulty with planning, initiating, and organizing (executive functions)
- diminished ability to adjust to change
- significant difficulty learning and retaining new information
- difficulty with problem-solving and decision making
- reduced speed of processing

2. Identify the parents' concerns in this area

C. Communication

1. Does the student demonstrate needs in the following areas?

- difficulty with word retrieval
- decreased social language (greetings, taking turns, asking questions)
- poor topic maintenance
- decreased vocabulary levels
- poor concept formation

2. Identify the parents' concerns in this area

D Sensory and Perceptual

1. Does the student demonstrate needs in the following areas?

- difficulty with visual tracking, visual field cuts
- difficulty with visual neglect
- difficulty with figure-ground relationships
- difficulty storing and retrieving information
- difficulty hearing
- difficulty with auditory processing
- decreased organizational skills

2. Identify the parents' concerns in this area

E. Motor

1. Does the student demonstrate needs in the following areas?

- decreased strength, endurance and flexibility
- decreased range of motion
- difficulty with static balance
- difficulty with advanced locomotor activities such as running, kicking, throwing, catching.

2. Identify the parents' concerns in this area

F. Psychosocial

1. Does the student demonstrate needs in the following areas?

- inappropriate social behavior (disinhibition)
- lack of awareness of the needs and perspectives of others (egocentricity)
- frequently acting without forethought (impulsivity)
- difficulty understanding humor
- inappropriate affection towards others
- verbal and or physical aggression
- irritability
- depression
- anxiety

2. Identify the parents' concerns in this area

G. Does the student demonstrate additional needs in any of the above areas?

IV. TYPICAL SUPPLEMENTARY AIDS, SERVICES, AND OTHER SUPPORTS For further information, consult Educating Students with Traumatic Brain Injuries: A Resource and Planning Guide (Corbett & Ross-Thomson; Wisconsin DPI, 1996) and strategies listed in **Module IV**. Remember that a list of typical aids, services, and supports is not a substitute for the careful examination of individual needs.

- supervision as needed
- extended time requirements
- reduced schedule
- modified academic work load and/or additional study halls
- consistent routines
- extra set of books to be kept at home
- ability to leave class a few minutes early or late to avoid hallway congestion
- preferential seating
- provision of study guides
- reduced assignments
- assignment notebooks
- special education classroom support
- check in with adult at beginning/end of school day
- modified instructional materials
- books on tape
- accommodations for slower work rate
- provision of additional structure, prompts and cues to ensure success
- peer assistance
- use of paraprofessional aide
- others _____
- _____

V. PROGRAM MODIFICATIONS OR SUPPORTS FOR SCHOOL PERSONNEL

- staff training
- consultation with knowledgeable others (medical, community, families, etc.)
- team teaching
- others _____
- _____

**IEP Activity
Instructions**

Student: Jerry **Grade:** 5 **Date of Injury:** _____
School: Glennwood Elementary School **Current Date:** _____

LARGE GROUP (25-30 minutes)

I. Read aloud the case study of Jerry presented on page 7c and the description of Jerry's parents' experience on pages 7d-e.

II. Large Group Discussion. Refer to the Information Gathering Worksheet on pages 7f, g, h. Complete the first two sections of the worksheet as you discuss the following questions:

- A. What do we know about Jerry's brain injury?
- B. What do we know about Jerry's pre-injury functioning?
- C. What was Jerry's parents' experience during his injury and hospitalization? What are their concerns?
- D. Who would you suggest be included as members of Jerry's IEP team? Would you include Jerry?

III. Read silently Jerry's Discharge Summary (pages 7i, j, k).

SMALL GROUPS (20-25 minutes)

IV. Divide into small groups. Jerry has been referred for an IEP team evaluation. Each small group will identify Jerry's current functioning and needs in one of the areas noted on the Information Gathering Worksheet (pages 7f, g, h.) These include: **Cognition, Speech and Language/Communication, Sensory and Perceptual Abilities, Motor Abilities, Psychosocial Skills, Physical/Health/Safety, and Academic Skills.**

V. Select a recorder/presenter to present the information your group obtains to the large group.

VI. Review the existing information relevant to the area of functioning assigned to your small group.

- A. You have **three additional sources of information** available to help you identify Jerry's functioning and needs. Review the report(s) relevant to the area of functioning you are examining:
 - 1. Hospital speech/language therapist report (pages 7l, m)
 - 2. Hospital occupational therapy report (pages 7n, o)
 - 3. Hospital physical therapy report (pages 7p, q)

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B. Complete the three columns of the Information Gathering Worksheet for the area of functioning assigned to your small group:

1. What is the student's current functioning in this area?
2. What needs does the student exhibit in this area? Does the IEP team need additional information?
3. If the student needs special education, how can these needs be addressed in the IEP? (Refer to IEP Considerations)

LARGE GROUP (30 -40 minutes)

VI. Small groups report on the information they have gathered regarding each area of functioning. For each area of functioning consider:

- What is Jerry's current functioning in this area?
- What needs does Jerry exhibit in this area? Does the IEP team need additional information?
- If Jerry needs special education, how can these needs be addressed in the IEP?

- A. Cognition
- B. Speech and Language/Communication
- C. Sensory and Perceptual Abilities
- D. Motor Abilities
- E. Psychosocial Skills
- F. Physical/Health/Safety
- G. Academic Skills
- H. Assistive Technology

VII. Assume your IEP team has gathered any additional data needed, that Jerry meets criteria for TBI, and that he needs special education and related services in the areas of speech and language, occupational therapy, and physical therapy.

- A. What information would you include in Jerry's present level of academic achievement and functional performance?
- B. What are the MOST IMPORTANT issues you would want to address in Jerry's IEP?
- C. Develop an example of an annual goal an IEP team might include on Jerry's IEP.

VIII. Examine examples of present level of academic performance and functional performance contents and goal on page 7r and 7s.

JERRY

Jerry is an eleven-year-old fifth grade student who was transferred by air ambulance to the Midwest Medical Center intensive care unit. He was injured in January while sledding near his home. Jerry rode his toboggan down a hill into the street and was struck by an automobile. Upon admission he was unconscious, with a Glasgow Coma Score of 8. He remained unresponsive for eleven days. An MRI conducted six days following his injury revealed that Jerry sustained midbrain and right frontal-temporal contusions. No other focal findings were evident. An EEG at the same time revealed a generalized disturbance with focal findings to the left hemisphere. Jerry is right-handed.

When Jerry was in the fourth grade his teacher raised concerns about Jerry to the school's Building Team because Jerry was not "working up to his ability." The teacher reported that Jerry was not completing his homework, he appeared uninterested in classroom activities, and he had few friends. When efforts to intervene to improve Jerry's performance failed, an IEP team evaluation for learning disabilities was conducted. Jerry's performance in reading, spelling, and math were consistent with late third grade skills. On the WISC-III Jerry obtained a Verbal IQ of 115, a Performance IQ of 112, and a Full Scale IQ of 115. Jerry did not meet the criteria for learning disabilities. The IEP team concluded: "In summary, it appears that Jerry demonstrates adequate intellectual abilities and academic skills needed to achieve expected tasks. However, he is experiencing what appear to be feelings of insecurity and increasing disinterest in school. Jerry has few friends in school, but he participates in community activities such as little league baseball." Jerry's fifth grade teacher initiated a behavior program with Jerry. She gave Jerry a baseball sticker each day he turned in his math homework. It seemed to be working, and before Jerry's injury, she was planning to expand it to language arts and science homework.

Once Jerry regained consciousness after his injury he was transferred to the Anderson Rehabilitation Center near his home. His doctor and parents were encouraged by his progress. Initially, Jerry experienced significant left side weakness, limited expressive language, and limited fine motor control. However, with therapy, Jerry rapidly regained skills. As his recovery progressed, Jerry was able to walk moderate distances with brief rests when he became tired. His speech improved, but Jerry experienced difficulty with word finding, which frustrated him. His memory for remote events was excellent; he could remember the names of all the teams in his little league division. However, his parents were puzzled by his spotty memory for recent events. For example, one day he remembered that his grandparents had visited earlier in the day, but he didn't remember what he ate for lunch. While Jerry was in the hospital the staff monitored him closely because at times he wandered into other patients' rooms.

Jerry is about to be discharged from the rehabilitation center 60 days after his injury. His parents are eager for Jerry to return to school, but they want Jerry to recover at home for a week or two first. His teacher referred Jerry for an IEP team evaluation as soon as he regained consciousness, and several IEP team members have visited Jerry in the hospital. They are concerned about meeting his needs in school because his needs have appeared different every time they have seen him. The IEP team has agreed to complete their evaluation as soon as possible so Jerry can return to school within two weeks.

JERRY'S PARENTS

Jerry lives with his mother, Sue, his father, Bob, and his two siblings, Katie, age 13 and Robbie, age 7. At the time of Jerry's injury, his parents were both at home. Katie was at a movie with friends and Robbie was sledding with Jerry outside the house. Sue had always worried about the boys sledding on the hill near the street, but Bob thought it was fine. Immediately after the accident, the automobile driver called 911; an ambulance arrived within two minutes and transported Jerry to the local hospital. Sue rode with him in the ambulance while Bob drove. Robbie wanted to go with to the hospital, but Bob left him with a neighbor. Bob and Sue forgot about Katie, but Robbie watched for her to come home.

When Jerry was transported to Midwest Medical Center, Sue accompanied him and Bob drove the hour-long trip. Bob and Sue knew Jerry's injuries were serious from the comments and actions of the medical teams; his parents thought Jerry would die. They began to be more hopeful after about 24 hours in the Medical Center, when Jerry had come through surgery to insert the intracranial pressure monitor and the doctor said Jerry was medically stable. His parents stayed by his bedside; after 24 hours they took turns napping in a chair in the room. Sue called her sister and made arrangements for Katie and Robbie to stay with their cousins. Katie begged to come to the hospital, but Sue said no; Sue told her daughter that Jerry was going to be fine. Bob drove home to get clothes for himself and Sue.

Sue stayed at the hospital night and day with brief visits home until Jerry became more responsive and gradually regained consciousness. After he was transferred to Anderson Rehabilitation Center she drove back and forth each day to be with him during his therapies. Jerry was often agitated in the evening, so Bob drove to Anderson every evening while Sue went home to put Robbie to bed. They hired a teenage babysitter to come to the house to fix dinner for Katie and Robbie and help them with homework.

When Jerry was admitted to Anderson, Sue and Bob were optimistic about Jerry's future. They had heard that Anderson was a terrific treatment center; nationally known football players had come there for rehabilitation. As Sue watched Jerry in physical and occupational therapies, she was thrilled to see him walking; when he started talking again, even though it was only a few words, she felt she had her boy back. She was sure he would recover fully, in spite of the cautions from the medical staff. But as February progressed, she and Bob became more concerned. They could see Jerry had a long way to go to get back to normal, yet his doctor and therapists were beginning to talk about discharge. Jerry still was unsteady walking, he couldn't pick up small objects with his left hand, he was impulsive – sometimes even going into other patients' rooms- and his memory was spotty. Sometimes he remembered their visits and what they talked about; other times he forgot.

Jerry was discharged from Anderson earlier in the week. Bob and Sue don't think Jerry was ready to go home. They wish he could continue to get more intensive therapy, but the doctor says Jerry will do better at home and school. Bob and Sue are hoping that Jerry will get an intensive therapy program at school.

His parents have talked with Jerry's teachers and with the director of special education. Until Jerry was evaluated for learning disabilities last year they hadn't known anything about special education; they are still unclear about how it works. Jerry's teacher said she is looking forward to Jerry coming back to school, but Sue and Bob have seen how much help Jerry needs; they can't really understand how he will be able to do the work.

Jerry's Parents' Concerns at the Time of the IEP Meeting

1. Sue and Bob have been with Jerry almost all his waking hours since the accident. They are very concerned about sending him to school, where staff won't really understand what he has gone through.
2. They are concerned about Jerry's safety moving about the school building. His walking is still unsteady and he tires easily.
3. Bob and Sue also are concerned about Jerry's behavior. They know he is impulsive, he sometimes shows poor judgment, and he gets frustrated easily, yet Sue and Bob are reluctant to point out these limitations. They are hoping that the familiarity of the school environment and being back with his peers will help Jerry get back to normal.
4. Jerry's parents want him to have intensive therapies at school. They are hoping he can have OT and PT twice each day, as he did in the hospital.
5. Sue and Bob don't know how Jerry will keep up with his schoolwork. Sue has tried to work with Jerry on some math and reading the teacher sent home, but Jerry got frustrated and angry.

Information Gathering Worksheets

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

I. Traumatic brain injury information

What do you know?	What if any additional information do you need for eligibility and program planning?
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II. Pre-injury functioning

What do you know?	What if any additional information do you need for eligibility and program planning?
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III. Current Areas of Functioning to Examine

A. Cognition (e.g., memory, attention, reasoning, abstract thinking, judgment, etc.)

Current functioning	Student needs in this area. Is more information needed?	How can needs be addressed in the IEP?

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B. Speech and Language/Communication

Current functioning	Student needs in this area. Is more information needed?	How can needs be addressed in the IEP?

C. Sensory and Perceptual Abilities

Current functioning	Student needs in this area. Is more information needed?	How can needs be addressed in the IEP?

D. Motor Abilities

Current functioning	Student needs in this area. Is more information needed?	How can needs be addressed in the IEP?

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E. Psychosocial Skills

Current functioning	Student needs in this area. Is more information needed?	How can needs be addressed in the IEP?

F. Physical/Health/Safety (e.g., medical/physical needs, self-care abilities)

Current functioning	Student needs in this area. Is more information needed?	How can needs be addressed in the IEP?

G. Academic skills

Current functioning	Student needs in this area. Is more information needed?	How can needs be addressed in the IEP?

Note to the person reviewing the Discharge Summary: This represents a summary of the rehabilitation center's most recent assessment of Jerry.

ANDERSON REHABILITATION CENTER

Medical Records Department
Central City, Wisconsin

DISCHARGE SUMMARY

Patient: Jerry
Admitted: 1-25
Discharged: 3-10

DISCHARGE DIAGNOSIS: Status post severe head trauma with intensive rehabilitation.

HISTORY AND PHYSICAL EXAMINATION: Jerry is an 11 year old white male admitted to Midwest Medical Center following a pedestrian/motor vehicle accident on 1-10. He was sledding on an incline near his home and failed to stop at the end of the driveway. He was transferred by air ambulance to Midwest Medical Center where he had a Glasgow Coma Scale score of 8. He remained in a comatose state approximately 11 days. An MRI performed on day 6 revealed midbrain and right frontal and temporal contusions. An EEG, also on day 6, revealed a general disturbance with a focal disturbance of the left hemisphere. Jerry was transferred to Anderson Rehabilitation Center on 1-25 for intensive rehabilitation.

On admission to the rehabilitation unit the patient was found to be alert but restless during examination. He was afebrile with a pulse of 90, respirations 20 and blood pressure of 118/70. Weight was 54.4 kilograms. There was a scar from the intracranial pressure monitor. This appeared well healed with no evidence of infection. Pupils were equal, round, and reactive to light. The neurological exam was remarkable for no vocalizations other than cries. He did follow simple commands. Sensation appeared to be grossly intact and motor strength was markedly decreased especially in the left upper extremity. There was minimal fine motor control of the fingers and the patient could ambulate with assistance only. He was unable to balance himself with one foot.

The patient was admitted to 2North pediatrics to begin intensive rehabilitation.

REHABILITATION COURSE: Physical Therapy evaluation on 1/26 revealed that Jerry had an ataxic gait and very poor balance and equilibrium while attempting to stand. He appeared capable of following simple requests but could not vocalize any wishes. He had full range of motion and muscle strength, which was judged to be good to normal. His sensation appeared to be grossly intact. Initial goals were to improve his gait and ability to ambulate including stair climbing, to improve gross motor skills, and to improve his strength and endurance.

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Dr. Smith of pediatric neurology evaluated Jerry on 1/27. It was his impression that Jerry had significant language deficit, primarily expressive, but without significant motor deficit.

Speech pathology evaluation was conducted on 1/28. It was their impression that Jerry was exhibiting substantial receptive and expressive language deficit, secondary to his head trauma. They recommended beginning a therapy program to increase his receptive and expressive vocabulary, conversational skills, attention skills, and to continue to monitor his progress with language testing.

The patient was also evaluated by Dr. Jones of ENT to rule out any vocal cord pathology. On evaluation Dr. Jones felt that the patient was able to phonate well with a clear voice. Evaluation of the glottis with a mirror was attempted but adequate examination could not be completed secondary to poor patient cooperation. It was decided that given the patient's ability to phonate well there would be no reason to pursue further evaluation of the patient's glottis.

Initial neuropsychology evaluation was completed on 2/1. Jerry's cognitive function was outside the normal limits with a verbal IQ of 64, performance IQ of less than 45, and a Full Scale IQ of 50 on the WISC-III. Academic functioning, an assessment of previously learned skills, showed reading decoding skills at the 4th grade level, spelling at the 2nd grade level, and math calculation at the 1st grade level. A measure of reading comprehension showed performance at the 2.4 grade equivalent. All of these scores stood in significant contrast to a learning disabilities evaluation completed in March last year. At that time the IEP team reported a WISC-III Verbal IQ of 115, a Performance IQ of 112, and a Full Scale IQ of 115. His academic skills were in the average range. He was reported to be impulsive, distractible and off task frequently with some social adjustment difficulties.

Jerry was followed by the brain injury service with continued treatment by occupational therapy, physical therapy, and speech pathology. Over the course of his hospitalization his affect improved and he was much less emotionally labile. By mid-February his language skills had improved markedly, although he still exhibited some difficulty with word finding. His motor skills also improved, although he continued to exhibit poor judgment and some left-sided neglect.

PRE-DISCHARGE EVALUATION

Dr. Anderson of ophthalmology evaluated Jerry and found him to have normal vision with no evidence of field deficits.

Evaluation by Dr. Nelson of pediatric neurology and evaluations by physical and occupation therapies identified some mild left-sided weakness both in upper and lower extremities. Patient continues to evidence left side neglect. Patient ambulates without assistance, but must be monitored for safety due to neglect, limited endurance, and poor judgment.

Speech pathology evaluation found Jerry to have significantly improved speech since admission. Receptive skills appear adequate. Patient is able to follow commands. Expressive skills fall in the

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below average range; patient continues to have difficulty with word finding which was evident on assessment. Patient also exhibited frustration during assessment.

Neuropsychology again evaluated Jerry in early March in anticipation of his discharge. His WISC-III scores included a Verbal IQ of 88, a Performance IQ of 71, and a Full Scale Q of 75. Scores reflected improvement in Jerry's overall level of awareness, but scores remained disparate from scores obtained at school. Academically, Jerry's performance also has improved, with reading decoding at the 5th grade level, reading comprehension at the mid 3rd grade level, math computation at the 3rd grade level, and spelling at the 4th grade level. These scores reflect significant improvement during admission. However, Jerry was judged to continue to demonstrate marked difficulty on almost every aspect of neuropsychological assessment. He was disinhibited and easily distracted, showing perseveration on tasks. Initiation of activities and sustained attention required prompts, even in one-on-one testing. Previously learned material, as shown on academic testing, is relatively well preserved. When confronted with tasks requiring new acquisition, he showed significant impairment.

DISPOSITION: As noted above, Jerry is an 11-year-old boy who is 60 days status post closed head trauma with an 11 day loss of consciousness. Although he has demonstrated substantial improvement following intensive multi-disciplinary rehabilitation, he continues to demonstrate substantial cognitive deficits, with milder language and motor deficits. Although previously learned material appears to be well preserved, acquisition of new skills and tasks will be especially difficult for him. A referral for special education evaluation has been made to the patient's school. In addition, poor judgment, as manifested by his inability to recognize dangerous situations will require him to be under close supervision or in a protective environment. Patient will need on-going occupation, physical, and speech therapy.

Follow-up in two weeks with pediatrics and neuropsychology.

Karl P. Upham, M.D.
Resident
3/5

Note to the person reviewing the speech/language report: This represents a summary of the speech and language findings and treatment to date.

ANDERSON REHABILITATION CENTER

Medical Records Department
Central City, Wisconsin

SPEECH/LANGUAGE REPORT

Patient: Jerry
Admitted: 1-25
Discharged: 3-10

HISTORY

Jerry is an 11 year old boy admitted to Anderson Rehabilitation Center on 1/25 following a sledding accident. Jerry sustained a brain injury in the accident. MRI on day six after the accident revealed midbrain and right frontal and temporal contusions. EEG at that time revealed a general disturbance with a focal disturbance of the left hemisphere.

REHABILITATION COURSE

At the time of admission evaluation (1/28) Jerry followed simple commands but his only vocalizations were cries. A speech/language treatment plan was developed and implemented during twice daily therapy sessions. Jerry made significant progress during his admission.

CURRENT FUNCTIONING

Hearing: Jerry responds appropriately to conversational level speech.

Oral Mechanism: The patient's oral mechanism appeared adequate in structure and function for communication purposes.

Voice: The parameters of voice appear to be within normal limits. Jerry now exhibits a normal intonation pattern during conversational speech.

Articulation: Articulation was not formally assessed. It was noted that Jerry misarticulates the /s/ phoneme during conversational speech.

Language: The Peabody Picture Vocabulary Test – Revised, Form L, was administered. Jerry achieved a standard score of 96 and a percentile rank of 39.

The upper extension of the Expressive One-Word Picture Vocabulary Test was administered. Jerry achieved a language standard score of 78 and a percentile rank of 7.

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On assessment Jerry appears to be functioning normally in the area of one-word receptive language. He shows greater difficulty with expressive language. Jerry exhibits confrontational naming difficulty and struggles with word-finding in conversational speech. His functional receptive and expressive language deteriorate in stimulating environments and when language demands are more complex.

Cognition and Behavior: Over the course of admission Jerry's behavior during therapy has improved, but he has remained impulsive, and he becomes frustrated easily. He has been most cooperative in therapy when materials have included games and sports activities; he has resisted school-like activities. Jerry continues to display decreased problem solving and reasoning.

IMPRESSION

Jerry continues to demonstrate language deficits secondary to his head injury. He has shown significant gains since his injury in receptive and expressive vocabulary, oral directions, and some problem solving. Continued progress is expected with appropriate intervention. However, long-term residual receptive and expressive language deficits are expected. His language involvement may become more evident over time as the language demands of the academic setting increase.

RECOMMENDATIONS

1. It is felt that language therapy is indicated to support his academic needs.
2. Continue emphasis on expressive language skills, problem solving, and higher level language processing tasks.
3. Jerry may benefit from the use of scripts in interpersonal situations.
4. Follow-up in four weeks.

Sue Jones, M.A., C.C.C.- SPL

Note to the person reviewing the occupational therapy report: This represents a summary of the occupational therapy findings and treatment to date.

ANDERSON REHABILITATION CENTER

Medical Records Department
Central City, Wisconsin

OCCUPATIONAL THERAPY REPORT

Patient: Jerry
Admitted: 1-25
Discharged: 3-10

HISTORY

Jerry is an 11 year old boy admitted to Anderson Rehabilitation Center on 1/25 following a sledding accident. Jerry sustained a brain injury in the accident. MRI on day six after the accident revealed midbrain and right frontal and temporal contusions. EEG at that time revealed a general disturbance with a focal disturbance of the left hemisphere.

REHABILITATION COURSE

At the time of admission evaluation (1/28) Jerry walked with an ataxic gait, had extremely limited endurance, and followed simple commands. His only vocalizations were cries. Jerry required assistance with all ADL's; his muscle tone, strength and coordination were poor. An occupational therapy treatment plan was developed and implemented during twice daily therapy sessions. Jerry made significant progress during his admission.

CURRENT FUNCTIONING

Upper Extremity Function:

Range of Motion: Appears to be within normal limits in both upper extremities.

Muscle Tone: Muscle tone is normal on the right, low on the left.

Muscle Strength and Coordination, and Sensation: Muscle strength is functional, right 5, left 4. He shows some weakness in the left upper extremity. Grip strength: left 40# and right 52#. Jerry shows some problems with bilateral motor coordination, but this has improved. Overall, writing has improved; letters are smaller, more legible and evenly spaced. Upper extremity sensation is intact to deep pressure. Further formal testing was not completed due to time limits.

Cognition: Jerry continues to be easily distracted and exhibits a short attention span. He was able to attend during the evaluation for approximately 30 seconds, however, he frequently looked around the room and needed to be redirected to task. He is oriented x 3 and readily verbalized

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this upon entering the session. Perseveration is still noted to be a problem. During the evaluation a few inappropriate comments were made.

Jerry continues to have difficulty with math problems. His performance is more consistent on computer presentation of problems than paper presentation. He can count to 40 by 2's, but with some hesitation. He can recall 4 digits forward and 3 digits backwards. When given two words he was able to identify similarities and differences between the two. Higher level abstract reasoning skills and judgment continue to be a concern as these areas show significant impairment.

Visual/Perceptual: This area was tested briefly. Jerry shows impulsivity during testing. He continues to show some figure/ground deficits. Jerry was able to more readily imitate symmetrical and asymmetrical postures. He continues to experience some left side neglect, but responds well to cueing.

Activities of Daily Living: Jerry is independent in feeding, hygiene and grooming. However, he needs reminders to brush his teeth and he resists showering. He is independent in toileting. He continues to have difficulty cutting his food, due to poor bilateral motor coordination. He also often pushes food off the left side of his plate. Jerry needs cueing and supervision to complete tasks, such as dressing, due to distractibility. He needs assistance tying his shoes (high tops) and fastening small buttons.

Equipment: None.

IMPRESSIONS

Although Jerry appears to have made great improvements since his head injury in the areas of fine motor development and activities of daily living, he needs continued therapy to increase his bilateral coordination, strength, and independence. Also, he will need services to address his social/emotional/cognitive needs.

PLAN: Follow-up in four weeks.

Pat Smith, M.S. OTR

Note to the person reviewing the physical therapy report: This represents a summary of the physical therapy findings and treatment to date.

ANDERSON REHABILITATION CENTER

Medical Records Department
Central City, Wisconsin

PHYSICAL THERAPY REPORT

Patient: Jerry
Admitted: 1-25
Discharged: 3-10

HISTORY

Jerry is an 11 year-old boy admitted to Anderson Rehabilitation Center on 1/25 following a sledding accident. Jerry sustained a brain injury in the accident. MRI on day six after the accident revealed midbrain and right frontal and temporal contusions. EEG at that time revealed a general disturbance with a focal disturbance of the left hemisphere.

REHABILITATION COURSE

Upon admission Jerry had severe balance and coordination problems, as well as attentional difficulties. He required constant verbal cueing to complete repetitive tasks and had difficulty with balance during these tasks. Jerry's gross motor skills have improved significantly since admission.

CURRENT FUNCTIONING

Range of Motion: Range of motion is well within normal limits excluding slightly tight hamstrings on bilateral legs- approximately 75 degrees straight leg raise.

Muscle Tone and Reflexes: Jerry shows normal to good plus strength in his right lower extremity with slight weakness in his left lower extremity. He does not appear to be dominated by any primitive reflexes at this time. His muscle tone appears to be slightly below normal compared to his peers.

Gross Motor Skills: Jerry was seen in physical therapy to work on balance, coordination, motor planning activities, and visual-spatial perceptual activities. While in therapy Jerry also began a general fitness program, including jumping jacks, push-ups, and sit-ups. Balance activities were addressed by standing on one foot, walking on a balance beam, standing on a scooterboard and being moved through space, and also working from the 4-point position with arm and leg lifts. In 4-point position Jerry is able to maintain reciprocal arm-leg balance for approximately 30 seconds. His strength remains his greatest problem and he fatigues easily. Coordination was addressed through jumping, running, obstacle course, and moving obstacle course activities. Jerry was also seen in therapy to work on perceptual skills while doing the obstacle course

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activities and moving through various trails staying on the trails. He continues to neglect obstacles on the left side occasionally.

Jerry has improved in stair safety. Initially, he was apprehensive going down stairs; he appeared to have decreased depth perception. However, at this time he can ambulate safely up and down stairs that are the same color background and without a rail in an alternating pattern.

Heel-to-toe walking has improved. Jerry walks with a reciprocal gait pattern, however, at times, it appears slightly awkward. His mother noticed some changes in his gait pattern, but it has improved steadily with therapy. He now demonstrates a reciprocal arm swing when he is ambulating. However, his stride length does appear slightly long compared to normal.

Behavior: Jerry's behavior during therapy is generally good. He has been very cooperative throughout his course of therapy and only on occasion becomes non-compliant with therapist's requests. With limit setting he is able to complete a task without difficulty.

RECOMMENDATIONS

I recommend that Jerry continue physical therapy at school to meet his educational needs.

Cindy Smith, PT

IEP INFORMATION: Jerry

PRESENT LEVEL OF ACADEMIC ACHIEVEMENT and FUNCTIONAL PERFORMANCE

Describe the student's strengths and concerns of the parents about the student's education.

Jerry has made steady improvement since his accident and now remembers most previously learned material. He is physically independent in feeding, toileting, hygiene and grooming with cueing and supervision. Jerry's speech has improved significantly since his injury. He is able to follow simple 1-step requests and answer a direct question on a surface level. Motorically, he is now able to maneuver up and down steps independently. Jerry wants to please his parents and teachers. He works well when he understands what is expected of him. Jerry likes the other students and wants to play with them. Jerry's parents are concerned about the knowledge level of staff in regard to brain injuries. They are worried about Jerry's increased levels of fatigue, safety in the school building and behavioral issues such as increased frustration, impulsiveness and poor judgment.

Will the student be involved full-time in the general education curriculum or, for preschoolers, in age-appropriate activities? Yes No x

If no, explain the extent to which the student will not be involved full-time in the general curriculum or, for preschoolers, in age-appropriate activities.

The student will participate in an alternate or replacement curriculum that is aligned with alternate achievement standards in Reading, Math, Language Arts, Science, Social Studies, and other.

At this time Jerry exhibits impaired cognitive, academic, language and motor difficulties, which require direct intervention from the special education teacher, speech, occupational and physical therapists. Jerry will begin school on a modified half-day schedule to include a late starting time and early dismissal. Jerry will participate in the general fifth grade curriculum in spelling, social studies, science, art, and music. He will participate in a modified curriculum in reading, math, and physical education.

Present level of academic achievement and functional performance including how the student's disability affects the student's involvement and progress in the general education curriculum. For preschool children, describe how the disability affects involvement in age-appropriate activities. (Note: Present level of performance must include information that corresponds with each annual goal.)

Sample academic achievement and functional performance content related to sample goal:

- Few friends prior to injury

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- Has been visited on 3 occasions by peers since his release from the hospital; inappropriate touching and verbalizations (*note: need to define, give examples*) occurred all 3 times
- Decreased bilateral coordination, balance, strength and independence (*this will impact what games he chooses and can do*)
- Receptive and expressive language deteriorate in stimulating and unstructured settings (*recess is one of those!*)
- Requires close supervision because of distractibility

Sample Goal: Jerry will interact socially on the playground with peers 9 of 10 opportunities.

Objectives:

- Given teacher and PT input, Jerry will make a list of at least 5 games or playground activities in which he is willing to participate with another student(s) by November 1.
- Given his list and adult cues and supervision, Jerry will choose a game/activity and play it appropriately (e.g., following the rules, taking turns, complimenting peers on their performance, without adult correction/intervention)
 - with one other student for a 10 minute recess period 4 of 5 opportunities by the end of January.
 - with 2 other students for a 15 minute recess period 4 of 5 opportunities by the end of March.
- Given his list and social skills instruction, Jerry will independently (e.g., no adult cues or intervention) choose a game/activity, ask 2-3 peers to play it with him, and appropriately (see obj. 2 for definition) play it for the entire recess period 9 of 10 opportunities.
- Given social skills instruction and opportunities to role play, Jerry will appropriately engage a peer in conversation about a topic, such as a school-related topic, a favorite TV show, etc., using an “inside” voice and appropriate language (defined as no swearing or sexual remarks) while waiting in line to enter the building first thing in the morning, at recess, or at lunch hour 9 of 10 opportunities.

Strategies for Working with Specific Problems of Students with TBI

I. Physical/Health/Safety	
<p>General Safety Issues <i>Example: The student has good mobility but poor judgment; student leaves the school building during class time. The student is impulsive e.g., on playground equipment. The student is disinhibited with peers.</i></p> <p>Educate <u>team members</u></p> <ul style="list-style-type: none"> • Be sure ALL team members (teachers, playground supervisors, bus drivers, etc.) are aware of the needs of the student for close supervision • Consult with the student’s parents to determine what supervision strategies work at home • Be sure an adult is responsible for the safety of the student at all times <p>Educate <u>peers</u></p> <ul style="list-style-type: none"> • Inform peers of the safety needs of the student (this can often be done with the student present and participating in the discussion) • Encourage peers to alert adults if the student is unsafe <p>Modify the <u>environment</u></p> <ul style="list-style-type: none"> • Remove hazardous objects (e.g., scissors, knives, chemicals) from the student’s environment • When necessary, curtail the student’s access to activities/equipment that may be unsafe (such as playground climbing equipment) • Consider procedures for fire drills, etc. <p>Instruct the <u>student to</u></p> <ul style="list-style-type: none"> • Understand safety precautions • Be aware of limitations • Engage in alternative activities 	<p>Fatigue <i>Example: The student tires easily. The student falls asleep in classes.</i></p> <p>Adjust <u>schedule to include</u></p> <ul style="list-style-type: none"> • Core academic subjects at times of least fatigue • Rest periods • Fewer transitions • Late arrival • Early dismissal • Part-time homebound instruction • Adaptive physical education <p>Modify <u>instruction</u></p> <ul style="list-style-type: none"> • Reduce physical components of tasks • Reduce time on individual tasks • Reduce completion requirements (e.g., 5 math problems instead of 10) <p>Check with <u>team members to</u></p> <ul style="list-style-type: none"> • Ensure appropriate positioning • Check on other class demands • Identify pattern of fatigue • Create consistent response to fatigue • Be sure teachers are aware of safety issues <p>Check with <u>home about</u></p> <ul style="list-style-type: none"> • Sleep schedule • Medications <p>Instruct the <u>student to</u></p> <ul style="list-style-type: none"> • Sit for a rest period • Lay down for a rest period • Have a beverage or snack • Get exercise if it helps this student • Inform teachers when tired

I. Physical/Health/Safety (continued)

Endurance

Example: The student is physically weak. The student can walk or use wheelchair only limited distances.

Modify the environment

- Reduce physical distances between activities
- Keep materials handy to avoid extra trips to locker
- Give student two lockers in different areas of school
- Adjust shelves of locker if student is in wheelchair

Modify schedule to include

- Adaptive physical education
- Breaks between activities
- Rest periods
- Late arrival
- Early dismissal

Ask peers to help

- Assign student to help with physical tasks

Check with team members to

- Assign adult to assist in transitions
- Be sure adults are aware of safety issues with student
- Coordinate demands across classes

Instruct the student to

- Understand his/her limits
- Stop activity when limit is reached
- Report to teacher when tired

II. Vision/Visual Spatial

Visual Spatial Neglect

Example: The student ignores the left half of the page or bumps into objects on the left side.

Adapt materials to include

- Highlighted margins in areas of neglect
- Yellow acetate paper over print to improve contrast
- Dark lined paper
- Cut-outs to lay over reading passages so student can follow along with finger
- Cues, such as a star or number at the left end of each reading line

Modify instruction

- Ask student to read while listening to books on tape to train to attend to neglected side
- Use books on tape to provide content when reading is significantly impaired
- Use concrete objects or oral instruction

Adapt the environment

- Provide preferential seating near the teacher who can provide cues
- Position student with left neglect toward the left of the room

Instruct student to

- Adjust placement of materials for best visibility
- Respond to cues to move head to see neglected side
- Use vision aids, such as cut-outs and overlays
- Monitor comprehension to aid awareness of neglect (if it doesn't make sense, maybe I skipped some words)

Other

- Teach peers to cue student to attend to neglected side
- Maintain predictable classroom organization
- Inform all teachers of visual needs

Visual Field Cuts

Example: The student doesn't see well in a certain area(s) of the visual field (such as the upper right area of vision).

Adapt environment

- Position materials for best visibility
- Position student in classroom for best visibility

Adapt materials to include

- Cut-outs to lay over reading passages so student can follow along with finger
- Cues such as highlighted margins in area(s) of field cuts

Modify instruction

- Give student written copies of overhead and blackboard materials
- Create/use materials that are not "crowded"
- Use concrete objects when possible
- Include cues to move materials into intact visual fields
- Audio-record materials

Instruct the student to

- Adjust the placement of materials to see all of them
- Respond to cues to position materials
- Recognize and signal when (s)he has difficulty seeing
- Use vision aids (such as reading cut-outs)
- Monitor comprehension to aid awareness of field cut (if it doesn't make sense, maybe I skipped some words)

Other

- Inform all teachers of student's visual needs
- Ensure appropriate supervision

II. Vision (continued)

Visual Tracking

Example: The student loses place while reading or can't follow the movement of a ball.

Adapt materials to include

- Cut-outs to lay over reading passages to limit what the student sees at one time
- Reduced amount of content on each page
- Dark lined paper
- Color
- Enlarged print
- Raised-line paper

Modify instruction

- Audio-record materials
- Provide adaptive physical education
- Use concrete objects when possible

Modify environment

- Give student preferential seating
- Remove student from situations in which vision reduces safety (e.g., some recess activities)
- Provide adequate supervision

Check with team members to

- Be sure all teachers are aware of visual difficulties

Ask peers to

- Be aware of the student's visual limitations
- Monitor own physical activities when near the student

Instruct student to

- Use visual aids such as cut-outs
- Use strategies such as moving a finger along a line of print
- Inform teachers when having trouble seeing

III. Hearing

***Example:** The student has reduced hearing acuity in some frequencies; has difficulty hearing in the presence of background noise; becomes agitated in noisy environments; is highly sensitive to certain noises (such as fire alarms or bells); seems to selectively hear (hears some things well, but doesn't hear other things); relies on lip reading; uses an interpreter.*

Modify instruction

- Decrease background noise
- Provide instructions in writing (on the board or handouts)
- Talk while facing the student
- Provide preferential seating
- Be sure you have the student's attention before speaking
- Consider altering the student's schedule to reduce overly stimulating situations (e.g., assemblies)

Adapt materials to include

- Written class notes
- Textbooks or other written reference materials
- Videotapes with captions

Instruct the student to

- Signal when (s)he cannot hear or understand
- Repeat back messages to ensure accuracy
- Use headphones in unavoidable noisy situations

Other

- Be sure student has had recent audiological evaluation
- Work with the interpreter to identify the optimal placement for interpreter, student, and teacher
- Have the class sit in a circle or semi-circle when possible so the student can see their faces
- Be sure the student has been properly evaluated for assistive technology, including hearing aids, FM system

IV. Memory

Memory Encoding

Example: Student does not retain information, e.g., schedule, assignments, names, locations. Student may have generalized difficulty with new learning.

Modify instruction to

- Ensure you have the student’s attention (see section V) before providing information
- Highlight important information
- Limit the amount of information provided at one time
- Provide immediate and distributed rehearsal/practice of new information and skills
- Activate the student’s prior knowledge in an area; link new information with old
- Provide review of important concepts
- Determine what helps the student remember (written or oral directions, role plays, gestures, visual cues)
- Provide written/picture instructions
- Provide assignment notebook
- Develop prompts to use written instructions and notebooks

Adapt the environment

- Develop consistent routines (e.g., sequences, schedule, locations)
- Use color, number codes or cues

Teach the student to

- Be aware of memory difficulties
- Respond to cues to use memory strategies (e.g., notebooks, practice)
- Use specific mnemonic strategies, such as visual imagery, verbal rehearsal, “chunking”, associative strategies, acronyms)

Memory Retrieval

Example: Student cannot consistently retrieve information. Student sometimes remembers or remembers with cues or prompts.

Modify instruction to

- Provide prompts or cues to facilitate retrieval (e.g., provide first letter/sound of the word, describe the object, provide an association)
- Cue the student to use the strategies employed for encoding (such as chunking or acronyms)
- Provide a choice format for the student (e.g., Is it blue or red?)
- Use multiple choice, matching, or true-false tests rather than essay, short answer or fill in the blanks.

Adapt the environment

- Provide consistent routines (e.g., sequences, locations, schedule) to help student remember
- Use color, number codes or cues

Teach the student to

- Understand the difficulties with retrieval and strategies to facilitate remembering
- Use strategies employed for encoding (such as associations, chunking or acronyms) for retrieval
- Use compensatory strategies, such as describing objects (s)he can’t name, talking about a topic to help activate memory of specific facts
- Use relaxation strategies when frustrated

For additional information related to memory, please refer to the Memory Training Module developed through the Wisconsin TBI discretionary grant at www.cesa11.k12.wi.us.

V. Orientation and Attention	
<p>Orientation <i>Example: The student is confused, seems to be in a fog, isn't always aware of time or place or other people.</i></p> <p>Educate <u>team members</u> to</p> <ul style="list-style-type: none"> • Be sure all staff members are aware of the student's injury and need for supervision • Provide education about TBI and orientation difficulties the student might experience • Remember that the student likely has difficulty with memory, attention, reasoning • Use appropriate behavior management strategies, such as redirection <p>Adapt the <u>environment</u> to</p> <ul style="list-style-type: none"> • Reduce distractions to prevent overstimulation • Label belongings, tasks, areas • Use name tags for staff • Create routines and consistency <p>Adapt <u>instruction</u> to</p> <ul style="list-style-type: none"> • Shorten instructional periods or school day as needed • Take advantage of the times when he student is most alert • Provide picture or written schedules • Provide frequent breaks • Include brief, focused instruction on meaningful tasks that the student understands • Use concrete reinforcers <p>Teach <u>peers</u> to</p> <ul style="list-style-type: none"> • Be aware of student's needs • Seek adult assistance if the student is unsafe 	<p>Attention <i>Example: The student does not get started on class work or attends only briefly.</i></p> <p>Educate <u>team members</u> to</p> <ul style="list-style-type: none"> • Be sure task level is appropriate. Be sure student can do what is being asked • Assess the length of time the student can attend under optimal circumstances. How long can (s)he attend to desired activities (e.g., videos, friends, music, television)? • Identify factors that facilitate/interfere with the student's attention (e.g., fatigue, hunger, noise) • Be sure student understands instructions. Have student repeat instructions, write them down, indicate what to do using picture cues. • Attend to and reward on-task behavior <p>Adapt <u>instruction</u> to</p> <ul style="list-style-type: none"> • Match the student's abilities to attend. Plan activities that don't exceed the student's attention span. • Break tasks into parts with breaks • Have the student with very brief (e.g., 15-30 sec.) attention work with teacher/aide • Match the student's interests <p>Modify the <u>environment</u></p> <ul style="list-style-type: none"> • Reduce factors that interfere with the student's attention (e.g., noise, light) • Provide preferential seating in the classroom <p>Instruct the <u>student</u> to</p> <ul style="list-style-type: none"> • Use a timer to focus attention for a specific period of time • Monitor attention to task • Complete a pre-determined amount of work and then take a break

VI. Reasoning

Problem Solving

Example: The student gets into fights on the playground because (s)he takes the soccer ball. The student gets frustrated because (s)he can't figure out how to open the glue stick. The student can't figure out how to correct math problems.

Adapt the environment to

- Reduce unnecessary frustrations or problems
- Be sure there are enough materials for everyone (e.g., provide another soccer ball)
- Be sure the materials are accessible (e.g., loosen the top of the glue stick)
- Provide adequate supervision so the student can receive assistance when needed
- Provide visual cues (e.g., the round circle around the tetherball pole marks the tetherball area; the red carpet square is where the student sits; the blocks can be used on the green tile)

Instruct team members to

- Be aware of the student's limited problem solving
- Provide cues to the student (e.g., point to the red carpet square)
- Help the student use a problem solving approach (e.g., identify the problem, identify solutions, generate pros and cons of solutions, pick a solution, implement it)

Modify instruction to

- Be sure instructions and expectations are clear and realistic
- Include focus on alternative and consequence generation
- Include samples for the student to consult
- Explain the format/structure of the task
- Maintain consistent format but change content

Teach peers to

- Be aware of the needs and strengths of the student
- View the student and themselves as part of a community
- Use a problem solving approach (teach all students in the school)
- Seek adult assistance when having difficulty with the student

Teach the student to

- Use a problem solving approach (e.g., identify the problem, identify solutions, generate pros and cons of solutions, pick a solution, implement it)
- Respond to cues to interrupt behavior, stop and think, or implement a problem solving approach
- Be aware of environmental cues (e.g., the round circle around the tetherball pole marks the tetherball area; the red carpet square is where the student sits; the blocks can be used on the green tile)
- Seek adult assistance when necessary

Check with home about

- What strategies work at home
- Using a consistent problem solving approach across settings

<p>VI. Reasoning (continued)</p> <p>Sequencing <i>Example: The student ruins a ceramics project by glazing before the piece is dry. The student has difficulty solving algebraic equations because (s)he does the operations out of sequence.</i></p> <p>Modify <u>instruction</u> to</p> <ul style="list-style-type: none"> • Limit the number of steps in a task • Present the first step, then the second etc. • Use backward buildup; have the student practice the last step, then the second-to last and last steps, etc. For example, have the student walk the last few steps into the classroom alone in the morning. Gradually build up the distance until the student is safe walking into school alone from the bus • Provide picture or written cues for each step of a sequence • Tell the student how many steps are required; e.g., “You need to do three things.” • Provide samples which show each step required in a sequence <p>Adapt <u>materials</u> to</p> <ul style="list-style-type: none"> • Provide only one or two steps of a sequence on a page • Color code different steps • Highlight when a new step is required <p>Teach the <u>student</u> to</p> <ul style="list-style-type: none"> • Refer to written or picture cues • Look at models provided or refer to directions • Use problem solving to figure out what to do next • Use self-instruction (What am I supposed to do? What is my plan? Am I using my plan? Good job!) 	<p>Generalization <i>Example: The student can show skills in one setting, but not another; e.g., the student can solve addition problems on a work sheet but not in the kitchen.</i></p> <p>Modify <u>instruction</u> to</p> <ul style="list-style-type: none"> • Practice new skills across settings, across individuals, with varied materials • Stress similarities and differences • Use examples that are meaningful to the student <p>Instruct <u>team members</u> to</p> <ul style="list-style-type: none"> • Identify common goals across classes or activities • Provide opportunities for practice of skills in situations in which they are used • Model skills across different tasks <p>Adapt <u>materials</u> to</p> <ul style="list-style-type: none"> • Have varied structure/format/expectations for application of a skill (e.g., do addition on flashcards, worksheets, objects to help consolidate skills) • Have similar structure/format/expectations across tasks (e.g., use a familiar reading format for story mapping in social studies to help the student apply reading comprehension skills in social studies) • Use codes (e.g., color, format) that indicate similar procedures across tasks or settings (e.g., a house sticker on the top of the page means take this worksheet home to show your parents) <p>Instruct <u>the student</u> to</p> <ul style="list-style-type: none"> • Focus on similarities and differences of settings, people, expectations, rules • Role play skills in new situations • Set goals for using skills across settings
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VII. Executive Functions	
<p>Planning and Organization <i>Example: The student has difficulty setting goals and following through to completion. The student loses materials.</i></p> <p>Instruct <u>team members</u> to</p> <ul style="list-style-type: none"> • Be sure all team members are aware of the student’s brain injury and difficulties with executive functions. • Be sure team members understand the difference between difficulties caused by brain injury and those caused by intentional misbehavior or disinterest • Assess the student’s capabilities and provide appropriate levels of support to ensure the student’s success • Communicate regularly with parents about assignments, projects • Reinforce completion of small steps <p>Adapt <u>instruction</u> to</p> <ul style="list-style-type: none"> • Structure assignments and projects so the student can define discrete steps and accomplish them one at a time • Use strategies, such as story mapping, that link details with the main idea • Include regular check-ins with the teacher <p>Teach the <u>student</u> to</p> <ul style="list-style-type: none"> • Keep materials in specific spaces • Organize materials each day • Use an assignment notebook • Use checklists and timelines • Develop routines, such as checking for homework materials each day before leaving school • Plan and carry out activities that are meaningful to the student, such as plan an outing to a school athletic function (with parent approval/support) 	<p>Self-Management <i>Example: The student relies on external prompts and cues to initiate and complete activities.</i></p> <p>Instruct <u>team members</u> to</p> <ul style="list-style-type: none"> • Set appropriate expectation for self-management; don’t eliminate assistance the student needs • Identify self-management strategies the student can use, such as setting goals, rating task completion, graphing performance, evaluating performance, using self-reinforcement • Use similar strategies across classes to help the student become more independent • Gradually reduce prompts/cues as the student shows increased independence <p>Adapt <u>instruction</u> to</p> <ul style="list-style-type: none"> • Include clear expectations and goals for the student • Include small group activities in which group members use self-management strategies • Set classwide expectations for self-management <p>Teach <u>peers</u> to</p> <ul style="list-style-type: none"> • Model self-management in individual and group activities <p>Teach the <u>student</u> to</p> <ul style="list-style-type: none"> • Use self-management strategies such as setting goals, rating task completion, graphing performance, evaluating performance, using self-reinforcement • Use aids such as kitchen timer or watch • Use concrete strategies, such as reading directions, numbering tasks, highlighting important information

VIII. Language	
<p>Receptive <i>Example: The student has difficulty understanding directions; the student's processing of language is slowed; the student misunderstands slang or idioms (e.g. the hot pink paper).</i></p> <p>Adapt <u>instruction</u> to</p> <ul style="list-style-type: none"> • Give smaller segments of information at a time • Allow the student ample time to process information before moving on • Emphasize and repeat key points • Use picture or written word cues • Provide work samples that illustrate requirements • Pair signs, gestures, or pictures with verbal information • Model what you expect the student to do • Include advance organizers and summaries of important information <p>Adapt the <u>environment</u> to</p> <ul style="list-style-type: none"> • Reduce distractions (noise, activity) when giving information to the student • Create a quiet corner to work individually with the student and/or a small group • Position the student in the classroom in locations where (s)he can see the board, hear the teacher, observe peer modeling <p>Teach the <u>student</u> to</p> <ul style="list-style-type: none"> • Use appropriate assistive devices • Monitor comprehension • Use cognitive or story mapping, graphs, charts to clarify information • Ask questions or give a signal when (s)he doesn't understand • Learn by watching peers, examining work samples, using picture/written instructions 	<p>Expressive <i>Example: The student has difficulty with word finding; the student seems to lose track of what (s)he is saying; the student</i></p> <p>Adapt <u>instruction</u> to</p> <ul style="list-style-type: none"> • Provide cues or prompts to help the student (e.g., ask the student choice questions, such as "Is this a square or a triangle?") • Give the student questions/answers to rehearse before class discussion • Develop brief scripts the student can use in some class activities (e.g., literature circles) <p>Adapt the <u>environment</u> to</p> <ul style="list-style-type: none"> • Include language cues; e.g., put the common vocabulary found in a new unit on the blackboard or tape it into the student's notebook <p>Teach <u>peers</u> to</p> <ul style="list-style-type: none"> • Understand the communication needs of the student • Use brief communication scripts with the student • Give the student extra time to respond <p>Teach the <u>student</u> to</p> <ul style="list-style-type: none"> • Use appropriate assistive devices • Use gestures or signs • Talk around the topic (circumlocute) to help find a word (describe it, what is its opposite, what color is it, where is it) • Try to draw or write a word (s)he cannot find • Use brief communication scripts to help him/her communicate in specific situations (e.g., greeting a friend, asking to join a game) • Rehearse questions/responses in advance

IX. Academic Skills	
<p>Reading <i>Example: The student has difficulty with decoding and comprehension; the student becomes frustrated and refuses to read..</i></p> <p>Adapt <u>instruction</u> to</p> <ul style="list-style-type: none"> • Read materials aloud • Provide tape-recording of student’s reading material • Provide reading materials of interest to the student • Include daily practice of reading • Include direct instruction of reading • Include functional sight words as you continue to teach decoding • Teach new vocabulary • Use small groups (e.g., literature circles) • Scan materials into a computer with voice output <p>Adapt <u>materials</u> to include</p> <ul style="list-style-type: none"> • Fewer items per page and large font size • Lined paper • Contrast between background and print • Highlighting of important information <p>Teach <u>student</u> to</p> <ul style="list-style-type: none"> • Follow text with finger, ruler, or pointer • Use comprehension strategies, such as previewing, questioning, predicting, reviewing, summarizing and monitoring • Fulfill a role in group reading activities • Use story mapping <p>Check with student’s <u>home</u> to</p> <ul style="list-style-type: none"> • Ensure that visual skills have been evaluated (e.g., acuity, visual fields) • Develop a plan for reading practice • Ensure that consistent strategies are used across settings 	<p>Math <i>Example: The student has difficulty following columns of numbers; the student neglects signs; the student can perform operations on a worksheet but not on applied word problems or in daily functioning.</i></p> <p>Adapt <u>instruction</u> to</p> <ul style="list-style-type: none"> • Use lined paper • Include fewer problems per page • Highlight operations signs • Use large font • Use cut outs to focus student’s attention • Include varied instructional formats for one skill to facilitate generalization • Use examples that are meaningful to the student • Highlight directions; review them with the student • Assess student’s skills; be sure student curriculum matches student needs • Be sure student can complete work successfully before letting student work independently; avoid practice of errors • Provide frequent feedback and review • Be sure instruction contains mostly (e.g., 75-80%) familiar material; introduce new content slowly <p>Teach the <u>student</u> to</p> <ul style="list-style-type: none"> • Attend to highlighted material • Read directions • Complete a few problems and then check to be sure they are correct • Follow models/samples/examples • See similarities in operations across varied formats (e.g., story problems, math facts, real life problems) • Work with a buddy • Use a calculator/other assistive devices

X. Social-Emotional	
<p>Social <i>Example: The student plays alone at recess, is too dependent on adults. The student alienates peers by monopolizing the conversation, being too loud and rough, or bossy.</i></p> <p>Adapt <u>instruction</u> to</p> <ul style="list-style-type: none"> • Include direct teaching of social skills • Include modeling of social skills • Include role plays of specific difficult situations • Provide opportunities for practice of social skills in small groups with coaching <p>Adapt <u>environment</u> to</p> <ul style="list-style-type: none"> • Include supervision of the student to prevent altercations on the playground, in the cafeteria • Include structured, adult-supervised social activities at recess/lunch <p>Teach <u>peers</u> to</p> <ul style="list-style-type: none"> • Understand the difficulties of the student Consider all students in the small group or classroom or school part of a supportive learning community • Model adults who show respect for all students <p>Teach the <u>student</u> to</p> <ul style="list-style-type: none"> • Pay attention to social cues (e.g., facial expressions, body positions, distance) • Ask for adult assistance when needed • Use social problem solving strategies (see section IV) • Be aware of strengths and needs • Consider the perspectives of others • Use brief communication scripts in some social situations • Identify rules for varied settings 	<p>Emotional <i>Example: The student is depressed or angry due to awareness of limitations. The student laughs and cries at inappropriate times or becomes easily frustrated or argumentative.</i></p> <p>Adapt <u>instruction</u> to</p> <ul style="list-style-type: none"> • Meet the abilities of the student. Be sure the student can experience success • Have an appropriate balance between familiar material (75-80%) and new content (20-25%) <p>Instruct <u>team members</u> to</p> <ul style="list-style-type: none"> • Avoid confrontation when possible • Prevent hassles when possible • Recognize and understand emotions the student may experience <p>Teach the <u>student</u> to</p> <ul style="list-style-type: none"> • Be aware of emotional consequences of TBI • Verbalize feelings • Identify appropriate outlets for feelings • Explain his/her areas of difficulty to others • Appreciate his/her strengths as well as needs • Identify goals; chart progress toward them • Take breaks when frustrated • Avoid situations known to provoke the student • Be aware of the signs of emotional escalation <p>Provide <u>additional services</u></p> <ul style="list-style-type: none"> • Provide individual or group counseling/psychological services at school • Refer the student/family to additional resources outside school, such as brain injury support groups or private counselors

References for Strategies

The following resources were used in developing the preceding list of strategies. The format was adapted from Corbett and Ross-Thomson (1996).

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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

MATH AND LANGUAGE ARTS. Ms. Walters is Jerry’s core teacher; she teaches math, language arts, and science. Ms. Walters has read some about TBI, but she feels ill equipped to work with Jerry. Some of Jerry’s problems are the same as the problems he had before his injury; he still has trouble getting started on classwork and completing homework. Ms. Walters had begun using a reward system with Jerry before his injury, and it was working well. She gave him a baseball sticker every time he turned in his math homework. Now she has doubled the reward – two stickers for each homework assignment – but Jerry isn’t turning in his homework. She knows the homework is hard for him; he seems to be having trouble mastering the geometry unit. But she believes doing his homework will help Jerry understand the geometry concepts. She has spoken with Jerry’s parents about his homework; they said they try to make him do it, but he gets frustrated quickly. Also, he falls asleep very early.

Some of Jerry’s problems are new to Ms. Walters. For example, she is frustrated with Jerry’s visual problems. She understands that he has “visual neglect” and doesn’t see materials placed on his left. She read that she is supposed to remind him to “look left,” and she does that ten times a day, but he still doesn’t always read the left end of a line of print or complete math problems on the left of the page. She is feeling unsuccessful with Jerry and wonders if another teacher would do a better job.

1. What is the problem stated in observable, measurable terms? (You may identify more than one.)

2. How does Jerry’s TBI influence the problem(s)?

3. Is/are the problem(s) a result of a skill deficit or a performance deficit?

4. What other factors influence the problem(s)?

5. What is the goal? (You may identify more than one.)

6. What are the targets of intervention? What strategies could you use? (See pages 26a-n.)

Target: _____ Strategies: _____

Target: _____ Strategies: _____

Target: _____ Strategies: _____

Target: _____ Strategies: _____

7. How will you know if the plan is working? What data will you collect to monitor progress?

Module IV: Planning to Meet the Needs of Students with TBI

MUSIC. Jerry's music teacher is Ms. Belman. She is the favorite teacher of the fifth grade students, and Jerry loves her. Since his accident he has been affectionate toward her, giving her hugs at the beginning and end of class each day. Even though she thinks it is a bit unusual, she returns his hugs every day because she feels so badly about his accident. At a monthly meeting to evaluate Jerry's progress, she reported that Jerry is doing pretty well in music class. He sometimes gets agitated when the music is loud, so Ms. Belman lets him get up and move around, stand outside the door, or wear earplugs when the class is too loud for him. She informs him before class about what they will be doing and helps him choose his level of participation for the day. These strategies seem to be working well.

However, Ms. Belman has two concerns about Jerry. First, he always seems to be alone. Whenever she sees him in the cafeteria or on the playground, he is by himself. She saw him approach two boys throwing a football a couple of times, but the boys laughed when Jerry came near them. Her second concern is that Jerry sometimes comes down to the music room when he should be in other classes. She has also seen Jerry in other parts of the school when he should be in classes. Yesterday when she saw him near the back door and asked him what class he was supposed to be in, he said he was supposed to be in the Learning Materials Center working on his social studies project.

1. What is the problem stated in observable, measurable terms? (You may identify more than one.)

2. How does Jerry's TBI influence the problem(s)?

3. Is/are the problem(s) a result of a skill deficit or a performance deficit?

4. What other factors influence the problem(s)?

5. What is the goal? (You may identify more than one.)

6. What are the targets of intervention? What strategies could you use? (See pages 26a-n.)

Target: _____ Strategies: _____

Target: _____ Strategies: _____

Target: _____ Strategies: _____

Target: _____ Strategies: _____

7. How will you know if the plan is working? What data will you collect to monitor progress?

Intervention Planning Worksheet

Student: Jerry (in math and language arts) **Grade:** _____ **Date of Injury:** _____
School: _____ **Current Date:** _____

1. Problem(s)

2. How does the brain injury influence the problem?
3. What other factors influence the problem?

4. Is the problem a result of a skill deficit or a performance deficit?

5. Goals

Module IV: Planning to Meet the Needs of Students with TBI

6. Targets (Problem A)	Strategies (examples)
Targets (Problem B)	Strategies (examples)
Targets (Problem C)	Strategies (examples)
Targets (Problem D)	Strategies (examples)
Targets (Problem E)	Strategies (examples)
7. How will you know the plan is working? .	

Intervention Planning Worksheet

Student: Jerry (in music) **Grade:** _____ **Date of Injury:** _____
School: _____ **Current Date:** _____

1. Problem(s)

2. How does the brain injury influence the problem?
3. What other factors influence the problem?

4. Is the problem a result of a skill deficit or a performance deficit?

5. Goals

6. Targets (Problem A)	Strategies (examples)
Targets (Problem B)	Strategies (examples)
Targets (Problem C)	Strategies (examples)
7. How will you know the plan is working?	