

# Improving Educator Response to Traumatic Brain Injuries

Spotlight on Technology, Arts, Research, and Scholarship

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# Brain injuries, especially severe ones, can produce deficits in:

- alertness and orientation
- intellectual functioning
- language skills
- nonverbal skills
- attention and memory
- corticosenory and motor skills
- academic functioning
- executive functions
- adaptive functioning
- behavioral adjustment



# TBI is **not** a low-incidence disability

- More than 130,000 children with TBI have functional limitations that are significant enough to warrant special education services (Glang et al., 2004)
- However, in 2007, only 23,805 students received special education services under the TBI category (IDEA, 2007)



# My Current Research on TBI

- Educator Knowledge and Skills
  - Evaluating survey data in collaboration with Western Oregon University
- Efficacy of Specific Interventions
  - Single-case design across participants
- College Services
  - Collecting interview data
- Consultation to Improve School Re-Entry
- Consultation to Improve Concussion Response
  - Program evaluations





# Purpose

- Stop current cycle of under-identification and under-service of students with TBI
- Improve evaluation and intervention for students with TBI
- Improve school re-entry for students with TBI (from hospital or rehab)
- Improve educator response to suspected concussions



# Educator Knowledge and Skills

- Surveys of teachers, school psychologists, and training programs
  - What do practicing teachers and school psychologists *know* about traumatic brain injury?
  - What do practicing teachers and school psychologists *do* in terms of assessment and intervention to meet the needs of students with TBI (or suspected TBI)?
  - How do school psychology training programs and teacher training programs address TBI? (e.g., amount and type of course content)

# Teacher Training Programs

<b>Train in TBI?</b>	<b>Regular Ed</b>	<b>Special Ed</b>
Yes	7.5%	72.5%
No	83.5%	16.5%

<b>TBI Coverage</b>	<b>Percent</b>
Minutes	24%
Hours	40%
One Class	10%
Two + Classes	10%
Weeks	8%
Alt. Method	8%



# School Psychologist Training

<b>Training</b>	<b>Percentage</b>
Training	53%
No Training	46%

<b>Training</b>	<b>Percentage</b>
Class/Seminar	2%
Miniseminar or Inservice	15%
Conference/Workshop	39%
A Class Session Within a Course	42%





# Teacher Knowledge

- By subgroups, regular education teachers scored 45.03% correct and special education teachers scored 52% correct. Teachers with TBI training scored 57% correct, whereas teachers with no TBI training scored 45% correct.



# School Psychologist Knowledge and Skills

- School psychologists who received TBI training were more knowledgeable about TBI compared to school psychologists who had not received training.
- The difference in self-reported skills between school psychologists with and without training was not statistically significant.



# Efficacy of Interventions

- Examined the efficacy of behavioral interventions for students with traumatic brain injuries (TBI).
- Evaluated whether or not students with TBI could learn to accurately self-monitor and whether self-ratings were associated with positive behavior changes.

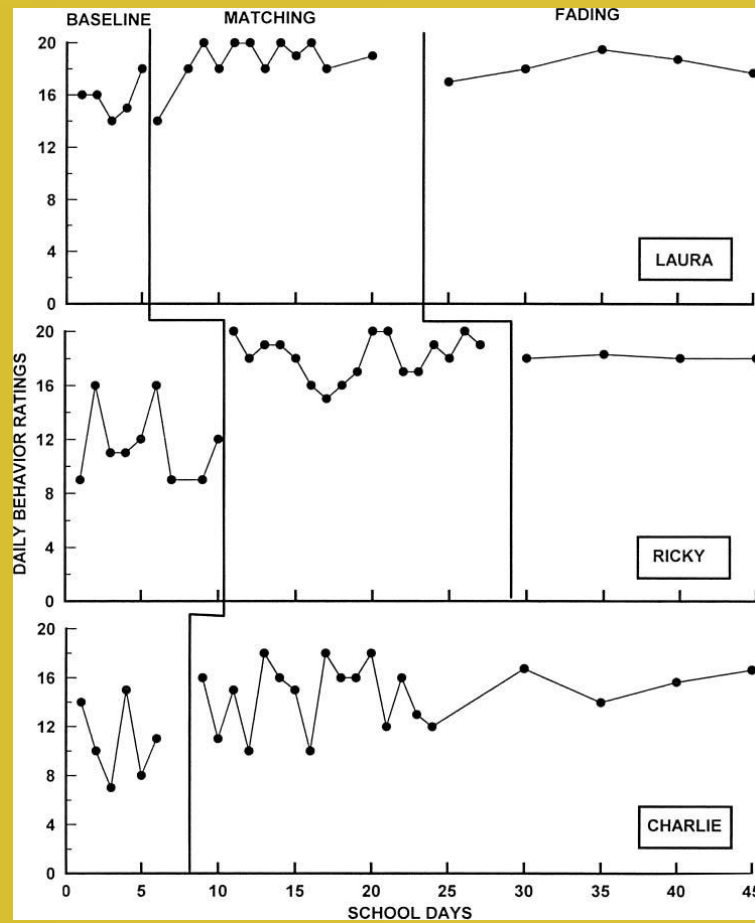
A vertical strip of five images showing colorful puzzle pieces and letters. The top image shows a close-up of red and blue puzzle pieces. The second image shows a pink puzzle piece with a black shape. The third image shows a yellow puzzle piece with a black shape. The fourth image shows a yellow puzzle piece with a black shape. The bottom image shows a green puzzle piece with a black shape.

# Self-Monitoring Intervention

- The self-monitoring strategy included 3 components: self-ratings, matching self-ratings and teacher ratings, and teacher feedback.
- The strategy improved performance for all three children, as well as self-monitoring accuracy.



# Self-Monitoring Results





# College Services

- Qualitative Research
- What are best practices in transition planning for students entering or returning to college after sustaining a traumatic brain injury?
- What supports or accommodations do college students with traumatic brain injuries (TBI) need at the postsecondary level in order to successfully adjust to the academic and social demands of college?
- How can these supports or services be implemented in order to increase the likelihood of student success?



# Consultation to Improve School Re-Entry

- School Psychologists
  - Consult with district personnel
  - Attend IAT meetings
  - Conduct TBI initial/ reevaluations
  - Attend children's hospital school re-entry meetings
  - Conduct in-services
  - Conduct periodic review evaluations
  - Work with sports medicine/ athletic trainers to educate coaches/ athletes about concussion



# Upcoming Research: Consultation to Improve Concussion Response

- Examine the efficacy of a school-based training paired with ongoing consultation to improve educator knowledge and response related to concussions
- Compare outcomes of school staffs who receive a concussion in-service plus ongoing follow-up and consultation to school staffs who only receive a concussion in-service