

# **SCHOOLS THAT WORK: THE ROLE OF METACOGNITIVE PROSTHETIC DEVICES**

**Donald Meichenbaum, Ph.D.  
Distinguished Professor Emeritus,  
University of Waterloo,  
Ontario, Canada**

**Research Director  
The Melissa Institute for Violence Prevention and Treatment  
Miami, Florida**

*[www.melissainstitute.org/scientific-articles-by-author](http://www.melissainstitute.org/scientific-articles-by-author)  
[www.roadmaptoresilience.org](http://www.roadmaptoresilience.org)*

**Presented at The Melissa Institute Annual Conference, May 3, 2019**



**Contact Information**  
**dhmeich@aol.com**

**Mailing Address**  
**Donald Meichenbaum  
9698 Carmelo Court  
Clarence Center  
NY 14032**

## SCHOOLS THAT WORK

1. Role of Principal Leadership in Creating a Safe, Inviting and Pedagogically Effective School Environment (*See Tool Kit - - Principal Report Card*)
2. Involvement of parents and community partners
3. Engage educational staff and involve them in decision-making
4. Create “high expectations, high support” schools.
  - a. Devote more school resources to improving classroom teaching.
  - b. Keep students in class for more hours. Fill summer breaks.
  - c. Set high standards for students and instill confidence. Foster a “growth” mindset versus a “fixed” mindset (ala the work of Carol Dweck) and encourage a “grit” mentality (ala the work of Angela Duckworth).
  - d. Focus on giving teachers feedback about their craft and help them improve. (See work on what makes an “expert” teacher). Conduct regular classroom observation and provide constructive supportive feedback.
5. What is metacognition and its relevance to providing educational support?
  - a. Knowledge of how the mind works. Declarative, strategic and conditional (“if...then”) knowledge.
  - b. Increased awareness and ability to monitor and self-regulate one’s cognitive abilities.
  - c. Ways to close the educational gap.
6. What are metacognitive prosthetic devices (MPD)?
7. Examples of top down and bottom up interventions
  - a. Focus on school readiness skills, especially reading competence foundational skills (See The Melissa Institute website on Literacy Balance Diet and Dodge, 2018).
  - b. Provide tiered interventions (universal - - school wide; selected- - self management supports; indicated - - wrap-around services).
  - c. See list of top down and bottom up intervention programs (See Meichenbaum presentation of the 17<sup>th</sup> Annual The Melissa Institute Conference).

- d. See list of behavioral influences KERNELS. Teacher-based antecedent, prompting and organizing instructional activities and ways to consequence desired student behaviors. Also, see ways to change behavioral outlines, scripts and mindsets.
- e. Provide metacognitive strategy instruction (*See The American Psychological Association "Top 20 principles from psychology for Pre K-12 Teaching and Learning" <http://www.apa.org/ed/schools/cpse/top-twenty-principles.pdf>*).
- f. See work on self-instructional strategy interventions - - Meichenbaum "*The evolution of cognitive behavior therapy*", *Routledge Publishers and Meichenbaum and Biemiller "Nurturing Independent Learners."*
- g. Engage in self-attributional training (student taking credit - - use metacognitive verbs – RE verbs). Discuss possible selves.
- h. Put students in a consultative role to help them develop mastery of the skills and strategies that are being taught "know it, describe it, explain it, demonstrate and teach it to others."