



The Connections Lab
MCGILL UNIVERSITY

Evidence-based Interventions: *How Can School Psychologists Make This (Now Completely Unrealistic) Idea Practical, Responsive, and Effective?*

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Disclosure

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Bio sketch

- Steven R. Shaw is associate professor in the Department of Educational and Counselling Psychology at McGill University in Montreal.
- At McGill University he is director of the Resilience, Pediatric Psychology and Neurogenetic Connections Lab and co-director of the McGill Developmental Research Lab.
- Before entering academia, he had 17 years of experience as a school psychologist in school, university, hospital, medical school, and independent practice. From 1997 to 2004, he served as lead psychologist and associate professor of pediatrics at The Children's Hospital in Greenville, South Carolina and Medical University of South Carolina.
- His clinical and research interests include pediatric school psychology, improving education of children with rare genetic disorders and autism, and development of resilience skills in children at risk for academic failure. He has over 210 scholarly publications and presentations and has published four books. He is on the editorial board of six international scholarly journals and is editor of School Psychology Forum.
- My 3rd time at BCASP—Thank you!



Agenda

- ◎ 9:00-12:00
 - The Problem—the research to practice divide
- ◎ *Break 1*
 - Quackery Inoculation
- ◎ 12:00-1:30 Lunch
- ◎ 1:30-4:30
 - Making Research Practical
- ◎ *Break 2*
 - Proposing a Partnership

You may live tweet or record

- ⦿ Consider this to be consent
- ⦿ Twitter: twitter.com/Shawpsych
 - #BCASPshaw

The Problem

Introduction

- ◎ There is pressure to provide “evidence-based practices.” That sounds great but...
 - What is this?
 - What were we doing before EVP?
 - Is it useful or practice?
 - How can we improve and use EVP in real practice
 - I’ve got some ideas (and data)...

- 
- Presentation: The goal of this talk is to take the now completely unrealistic (but good) ideas of research-to-practice and evidence-based intervention and make them relevant and useful to everyday school psychology practice. Participants will:
 - • Improve science-based practice, increase the quality of interventions, increase relevance of research to practice, and improve the management of student data and accountability.
 - • Learn how to convert evidence-based practice and other research into classroom and specialized educational and mental health interventions.
 - • Identify the weaknesses and flaws in evidence-based practice models and treatment integrity.
 - • Understand a new method of research-to-practice called the Open-Source Analogy Model that addresses weaknesses in present evidence-based systems.
 - • Create free access to a set of curricula focusing on academic enabling skills (executive functioning, social skills, school adaptation skills).
 - • Provide opportunities to partner in research; share ideas; and improve quality, flexibility, diversity, and scientific quality of practice.



Everyone (Really) Hates Research

- ⦿ No one reads SPR or CJSP
- ⦿ Many have nightmare flashbacks to their own research
- ⦿ “Water is wet”
- ⦿ Irrelevant minutia
- ⦿ No one talks about the big issues
- ⦿ More an intellectual exercise than anything useful



Research to Practice Issues

- The lag time from efficacy research to effectiveness research to dissemination is 10-20 years.
- Only 4 of 10 Blueprint Violence Prevention programs had the capacity to disseminate to 10+ sites in a year.



Terms

- Evidence-based practice
- Research-supported interventions
- Treatment Integrity
- Implementation Science



Grouchy Cynic Time

- ⦿ Too much money
- ⦿ Lack of disclosure
- ⦿ Idea + \$  marketing to public
- ⦿ Magic cure claims
- ⦿ Great ideas languish due to no implementation
- ⦿ Terrible ideas flourish because of marketing and investment

The Evidence-Based Intervention Movement in Perspective

- **Evidence-Based Medicine**
- **The Scientist-Practitioner Model**
- **The Managed Care Movement**
- **Reform in Special Education**
- **Professional Organizations**



Evidence-based practices

- The latest requirement
- The ability to cherry pick bad science
- One step above making stuff up
- *Link to recent article from my lab:*
www.mcgill.ca/connections-lab/files/connections-lab/cq_43_1.pdf



Evidence-based practices

- Few studies are replicated
- Individual differences
- Evidence of Aptitude X Treatment
- Implementation
 - Who, when, why, where, and how
 - Context
- Evidence-based practices as proof-of-concept, not a carte blanche to implement



APA Policy Statement: Clinical Implications

- ▣ ***Clinician determines*** applicability of research conclusions to individual patient.
- ▣ A ***patient may require*** “decisions and interventions ***not directly addressed by available research.***”
- ▣ Application of research requires “probabilistic inferences”
- ▣ “***Ongoing monitoring*** of patient progress and ***adjustment of treatment*** as needed are essential to EBP.”



Literature Review

◎ Miranda et al (2005)

- EBPs effective with different minority groups and children and adults for a wide range of mental disorders and problem behaviors (e.g. depression, anxiety, family problems)
- largest most rigorous literature support EBPs for depression for African-Americans and Latinos with size effects equal or greater to Whites
- less data for Asians, however, findings promising



APA Policy Statement

- ◎ Patients Characteristics, Values, and Context
 - Interventions “***most effective when responsive to the patient’s*** specific problem, strengths, personality, sociocultural context, and preference.”
 - “A ***central goal*** of EBP is to ***maximize patient choice*** among effective alternative interventions/”



Are Cultural Adaptations Justified?

- ◎ APA Multicultural Guidelines (2003)
- ◎ “Psychologists encouraged to:
 - “acquire an understanding of the ways in which experiences (e.g. ethnocentrism, racism, sexism, ableism, homophobia) relate to presenting psychological concerns...including...worldview”
 - “be aware of the role that culture may play in the establishment and maintenance of a relationship between the client and therapist.”



APA Policy Statement

◎ Best Research Evidence

- Evidence should be based on systematic reviews, reasonable effect sizes, statistical significance, and a body of supporting evidence
- Should not assume interventions that have not been studied in controlled trials are ineffective
- New developments should be rigorously evaluated

APA Agenda

- APA Policy Statement on Evidence-Based Practice (EBP) in Psychology (2006)
- Literature review on EBP with ethnic minorities
- Justification of cultural adaptations
- Types of cultural adaptations
- Examples of recommendations for cultural adaptations



Outcome

Positive

Negative

Integrity
High
Low

Continue Intervention

Change Intervention

Unknown reason

- Other life changes?
- Unknown intervention?
- Intervention is effective?

Unknown reason

- Intervention problem?
- Implementation problem?

Effects of Training

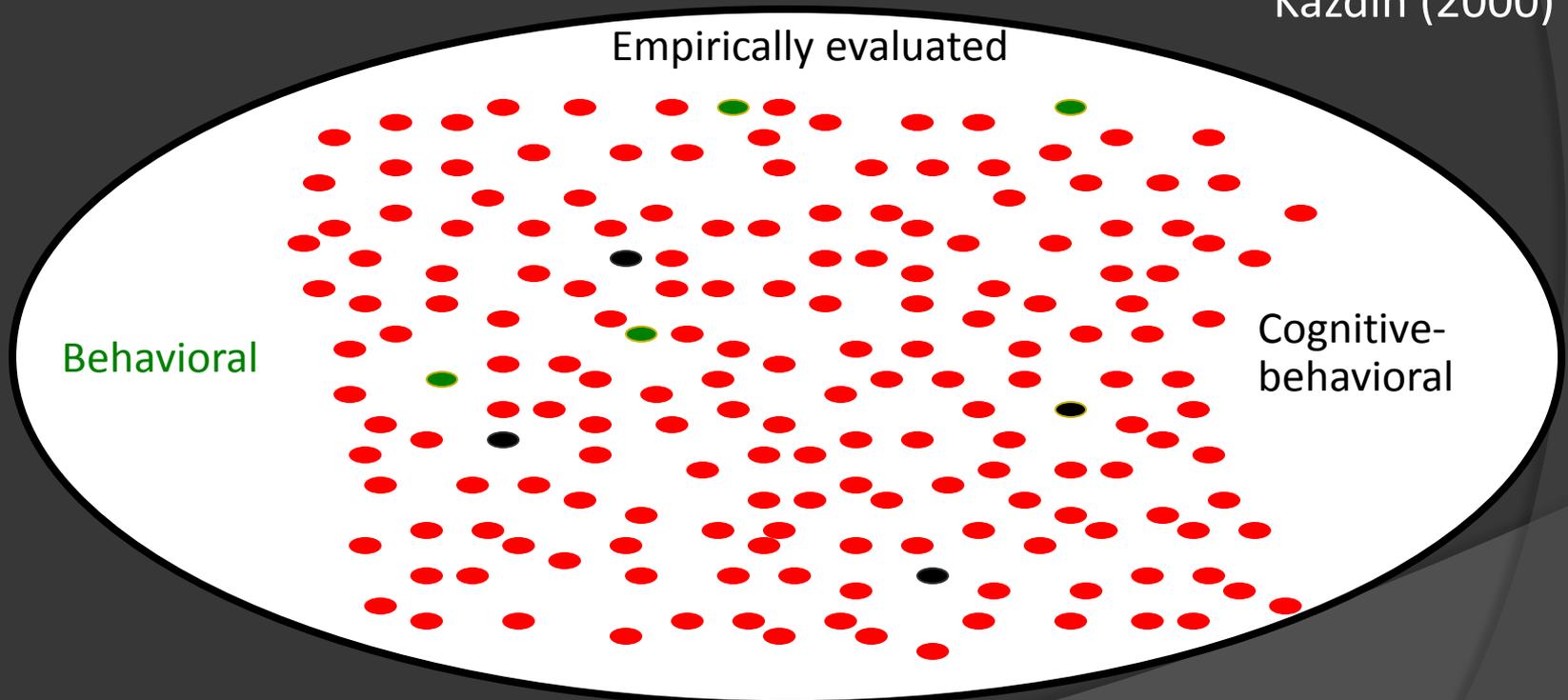


TRAINING COMPONENTS	OUTCOMES (% of Participants who demonstrate knowledge, demonstrate new skills in a training setting, and use new skills in the classroom)		
	Knowledge	Skill Demonstration	Use in the Classroom
Theory and Discussion	10%	5%	0%
..+Demonstration in Training	30%	20%	0%
...+ Practice & Feedback in Training	60%	60%	5%
...+ Coaching in Classroom	95%	95%	95%

How Big is the Gap?

550 named interventions for children and adolescents

Kazdin (2000)



Evidence-based interventions are less likely to be used than interventions for which there is no evidence or there is evidence about lack of impact.

Why Treatment Integrity is Important?

- Horner (2005)

- Effect of high fidelity vs low fidelity on office discipline referrals.
 - Schools that implemented with high fidelity had 25% fewer office referrals for major rule violations than schools that did not meet fidelity criterion.
 - Fidelity measures taken 2 times per year.

- If we want to increase the integrity of implementation we need a different training model.

Why Treatment Integrity is Important?

- Kovaleski, Gickling, Morrow, & Swank (1999)
 - Evaluated high vs low implementation of Instructional Support Teams (IST).
 - School-wide organizational change.
 - Students benefited from IST processes only when implemented with high fidelity.
 - Implementing with low fidelity resulted in no better outcomes for students than control group not exposed to IST processes.
 - Having structures in place was not sufficient to assure high fidelity.
 - Fidelity assessed one time per year.

Implementation: *Where Good Interventions Go to Die*

- ⦿ Implementation is not important unless it is done with integrity (although I will make an exception later)
- ⦿ Evidence-based drug education programs are implemented with integrity only 19% of the time. (Hallfors & Godette, 2002)
 - This may be a generous estimate.
 - No reason to assume that other interventions fare better.

What We Know

- Teachers are primary means of exposure to interventions.
- Students will not benefit from effective practices if they are not exposed to them.
- Data suggest that preparation programs are not preparing trainees to use evidence-based practices.

Implementation: Bridging the Research-Practice Gap

- ◎ Is identifying evidence-based interventions sufficient to meet regulatory and ethical requirements?
 - Intent of both legal and ethical guidelines is to have positive impact.
 - Evidence-based interventions are assumed to give to give us that chance.
- ◎ Identification is necessary but not sufficient to assure that intervention will be effective.



Principles of Effective Diffusion: Improving the Odds

- ⦿ Innovation is perceived as being simple to understand and implement.
- ⦿ Innovation can be implemented on a limited basis prior to broad scale adoption.
- ⦿ Results of the innovation are observable to others.

Principles for Effective Diffusion: Improving the Odds

- ⦿ Innovation has to solve a problem that is important for the “client.”
- ⦿ Innovation must have relative advantage over current practice.
- ⦿ It is necessary to gain support of the opinion leaders if adoption is to reach critical mass and become self-sustaining.
- ⦿ Innovation must be compatible with existing values, experiences and needs of the community.



Diffusion of Innovation

Rogers, Diffusion of Innovation, 2003

- Diffusion of innovation is a social process, even more than a technical matter.
- The adoption rate of innovation is a function of its compatibility with the values, beliefs, and past experiences of the individuals in the social system.

Quackery Inoculation



Choosing Between False Positives and False Negatives

- ⦿ At this stage, it is better to have more false positives than false negatives.

False Negatives:

Effective interventions will not be selected for implementation.

- ✓ As a consequence, less likely to determine that they are actually effective.

False Positives: Progress monitoring will identify interventions that are not effective.

Actual Effectiveness

Effective

Ineffective

<p>True</p> <p>Positive</p>	<p>Most likely with hierarchy approach</p> <p>False</p> <p>Positive</p>
<p>Most likely with threshold approach</p> <p>Negative</p> <p>False</p>	<p>Negative</p> <p>True</p>

Assessed Effectiveness

Effective

Ineffective

How Are Evidence-based Interventions Identified?

- Two approaches to validating interventions
 - Threshold approach:
 - Evidence must be of a specific quantity and quality before an intervention is considered evidence-based.
 - What Works Clearinghouse
 - Meets evidence standards.
 - Meets evidence standards with reservations.
 - Does not meet standards at this time.
 - Hierarchy of evidence approach:
 - Strength of evidence falls along a continuum with each level having differential standards.
 - National Autism Center
 - Established
 - Emerging
 - Unestablished
 - Ineffective/Harmful

Continua of Evidence

Quantity of the Evidence

Quality of the Evidence

**Threshold
of
Evidence**

Meta-analysis
(systematic review)

Current "Gold Standard"
High Quality
Randomized Controlled Trial

Repeated Systematic
Measures

Single Case Designs

Single Case Replication
(Direct and Parametric)

Semi-Randomized Trials

Well-conducted
Clinical Studies

Convergent Evidence

Uncontrolled Studies

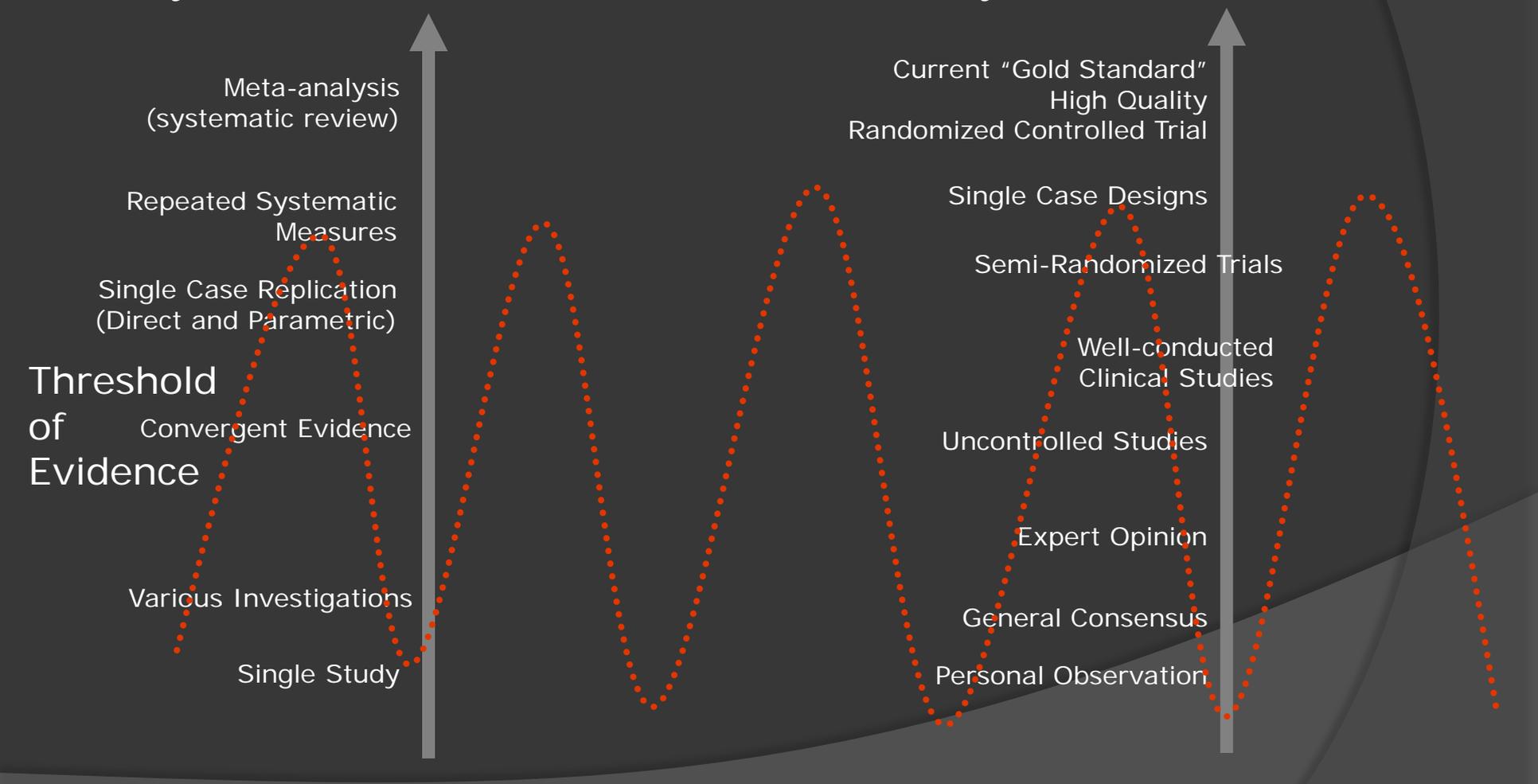
Expert Opinion

Various Investigations

General Consensus

Single Study

Personal Observation



How Are Evidence-based Interventions Identified?

- Distillation requires standards of evidence for reviewing the literature.
 - Standards specify:
 - the quantity of evidence
 - the quality of evidence



How Are Evidence-based Interventions Identified?

- ⦿ Identification is more than finding a study to support an intervention.
- ⦿ Identification involves distilling a body of knowledge to determine the strength of evidence.



Applying Best Available Evidence Construct

- If validated intervention available adopt it.
 - Assuming it is appropriate to context.
- If no validated intervention select empirically supported intervention.
- If no empirically supported interventions develop intervention based on principles.
 - Principles of scientific reading.
 - Principles of behavior.



Distinguishing Between Evidence-based and Empirically Supported

- ⦿ Evidence-based refers to practices that have been validated through a systematic review.
 - Can involve meta-analysis.
 - WWC reviews are systematic reviews.
- ⦿ Empirically supported refers to practices that have received support in peer reviewed journals.
 - Have not been systematically reviewed to establish strength of evidence.

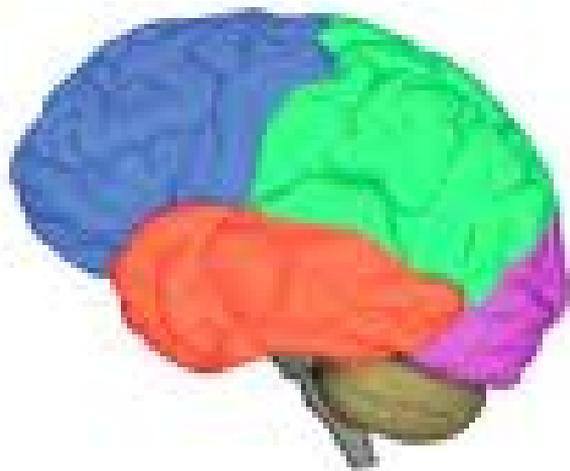
What Counts as Evidence?

- ◎ Ultimately, this depends on the question being asked.
 - Qualitative methods are best for answering social validity questions.
- ◎ In EBP the goal is to identify causal relations between interventions and outcomes.
 - Experimental methods do this best.

What is Evidence-based Education?

- ◎ The term “evidence-based” has become ubiquitous in last decade.
 - Often used interchangeably with empirically supported and best practice.
 - No consensus about what it means.
 - At issue is what counts as evidence.
 - Federal definition emphasizes experimental methods.
 - Preference for randomized trials.
 - Definition has been criticized as being positivistic.

Brain-Based Learning



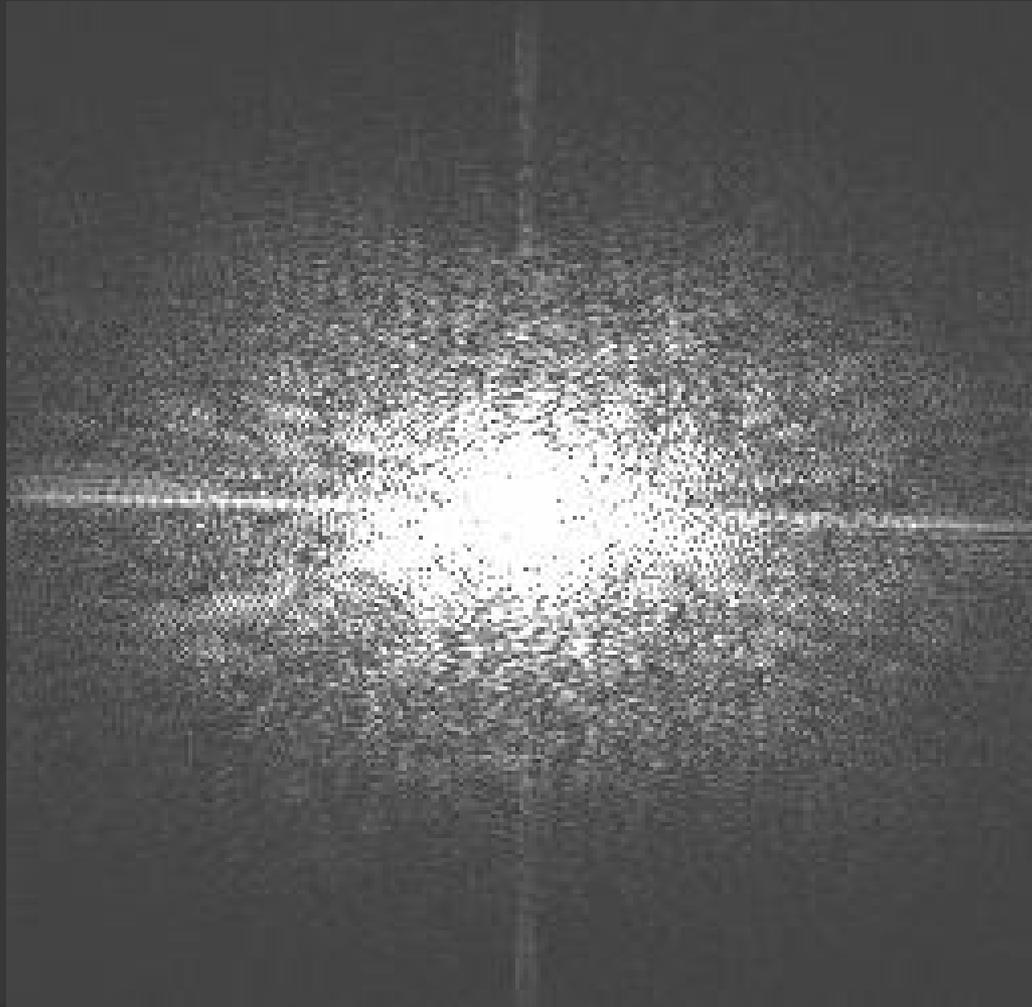
Brain-Based Learning Theory is based on the structure and function of the human brain. As long as the brain is not prohibited from fulfilling its normal processes, learning will occur.

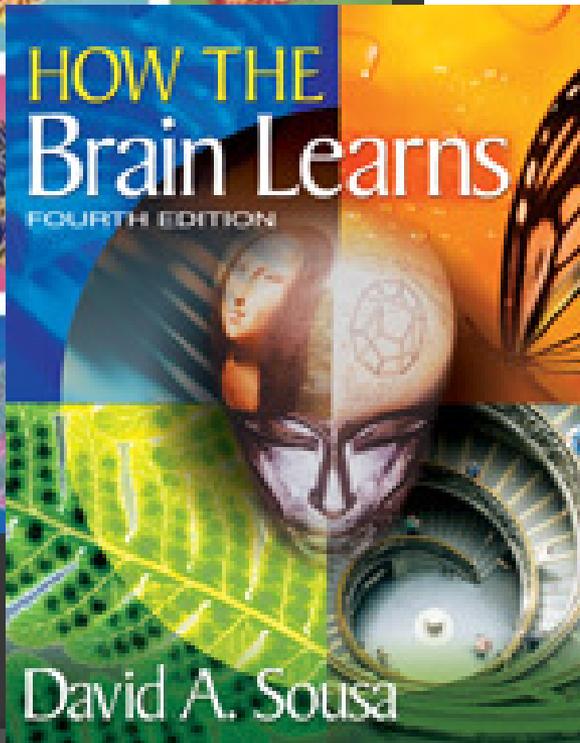
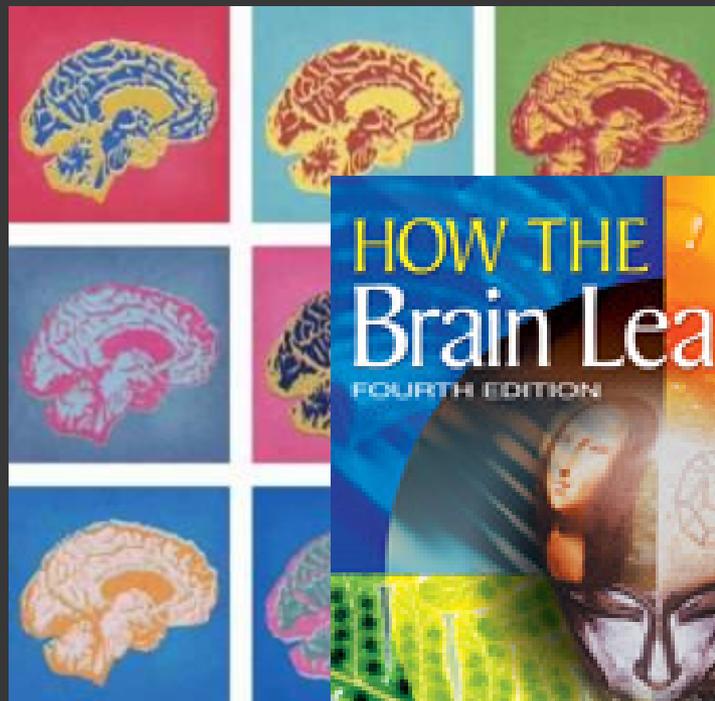


Fundamental issues

- ◉ Knowing the links between localization and function is fine, but:
 - Causal or correlational?
 - Faulty methods (GLM and independence)
 - Faulty syllogism
 - Conflating neuroplasticity and learning
 - Development
 - Aptitude X Treatment
 - Applications and implementation
 - The “so what” question

Raw data





BRAIN SCHOOL

HOWARD EATON, ED.M.



Previous failed efforts

- Learning styles
- Multiple intelligences
- Left brain/right brain
- Neuromotor patterning
- Multisensory education
- Sensory integration therapy



4th Law of Thermodynamics

- ⦿ “The amount of energy necessary to refute bullshit is an order of magnitude bigger than to produce it.”

Retractions

- ④ 49 fMRI and learning refereed and published papers have been retracted by journals due to misleading analysis or fraud—retractions rarely get attention
- ④ 2 during the last week of August
- ④ Source: retractionwatch.com



Discarded studies

- ① Scanning cadavers and fish and made up constructs seem to have positive results in blind studies
- ① Uncorrected statistics, poor procedures, and nearly all results are not replicated
- ① Not retracted, but severely flawed

Adding to error

- ◉ The seductive allure of neuroscience explanations by Weisberg, Keil, Goodstein Rawson, and Gray (2008). *J of Cognitive Neuroscience*, 20, 470-477.
- ◉ Seeing is believing: The effect of brain images on judgments of scientific reasoning by McCabe and Castel (2008). *Cognition*, 107, 343-352.
- Brain images and neurobabble generally make people more predisposed to accept an idea



basic research v. clinical practice

- Neuroscience has extraordinary potential for informing education, psychology, and psychiatry
- Imaging is now basic science
- There is zero evidence that this information currently has utility for education or instruction
- Efforts to make premature application are well-meaning folks who are simply ahead of the science or snake-oil salesman with a profit motive



Conclusions

- ⦿ There is potential for brain science to contribute to education, but it is a long way off
- ⦿ Current efforts are well-meaning speculation or outright quackery
- ⦿ Basic science is very exciting and we need to look for implementation opportunities



Real World Practice to Research



Assumptions

- ⦿ All adolescents can learn
- ⦿ Low intelligence is not academic destiny
- ⦿ Mental ability is a useful construct
- ⦿ Low intelligence is another risk factor that can be overcome
- ⦿ Good teaching is one key to creating resilient adolescents



Basic Constructs for Teaching High Risk Students

Five themes

- *Make all instruction concrete and relevant*
- *Preorganize presentation of new material*
- *Program skill transfer/generalization into every activity*
- *Appropriately paced classroom*
- *Prevention of disciplinary problems*

Introduction

- ① How to best provide education to students who fall into the cracks of the education system
- ① The specific education techniques
- ① How we implement the plan
- ① Current and future research

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graph LR; SS((School Success)) --- CAS((Cognitive/Academic Skills)); SS --- MAS((Meta Academic Skills));
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School Success

Cognitive/ Academic Skills

- Reading Abilities
- Writing Abilities
- Math Abilities
- General Intelligence
- Attention

Meta Academic Skills

- Executive Function Skills
- School Adaptation Skills
- Social Skills
- Coping with Medical Issues
- Coping with Mental Health Issues

Academic skills (traditional approach)

reading



writing



math

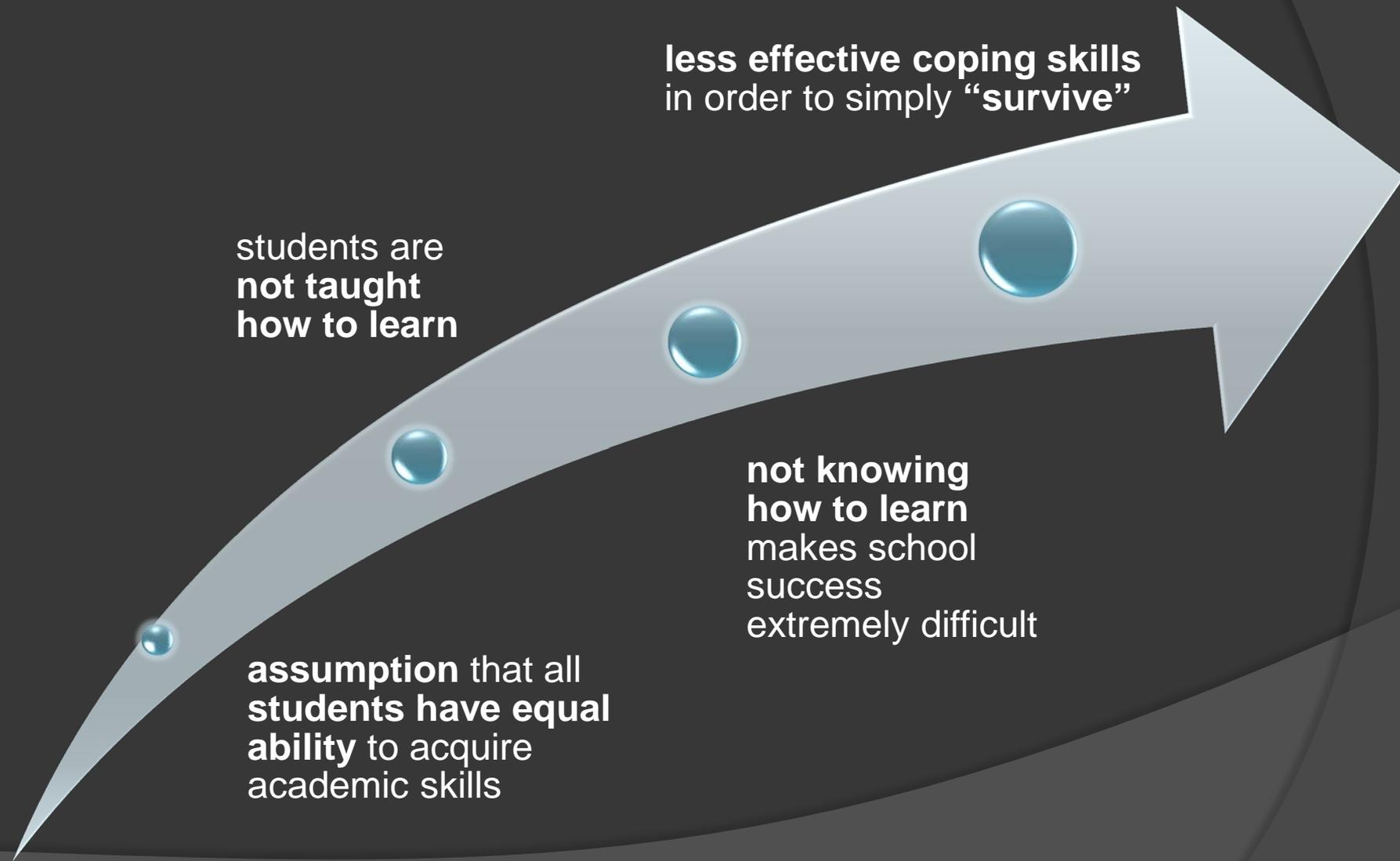


Da rules

- Rule: narrow constructs more changeable than broad
- Rule: simple interventions better than complex
- Rule: early better than late
- Rule: assessment of context as important as assessment of internal construct
- Rule: interventions tied to theory (including neuroscience) > than ad hoc ideas
- Rule: generalizability is a key



Meta-academic model



less effective coping skills
in order to simply “survive”

students are
not taught
how to learn

not knowing
how to learn
makes school
success
extremely difficult

assumption that all
students have equal
ability to acquire
academic skills

Meta-Academic Model

Adaptive
School
Behaviors

Social Skills

Executive
Functions

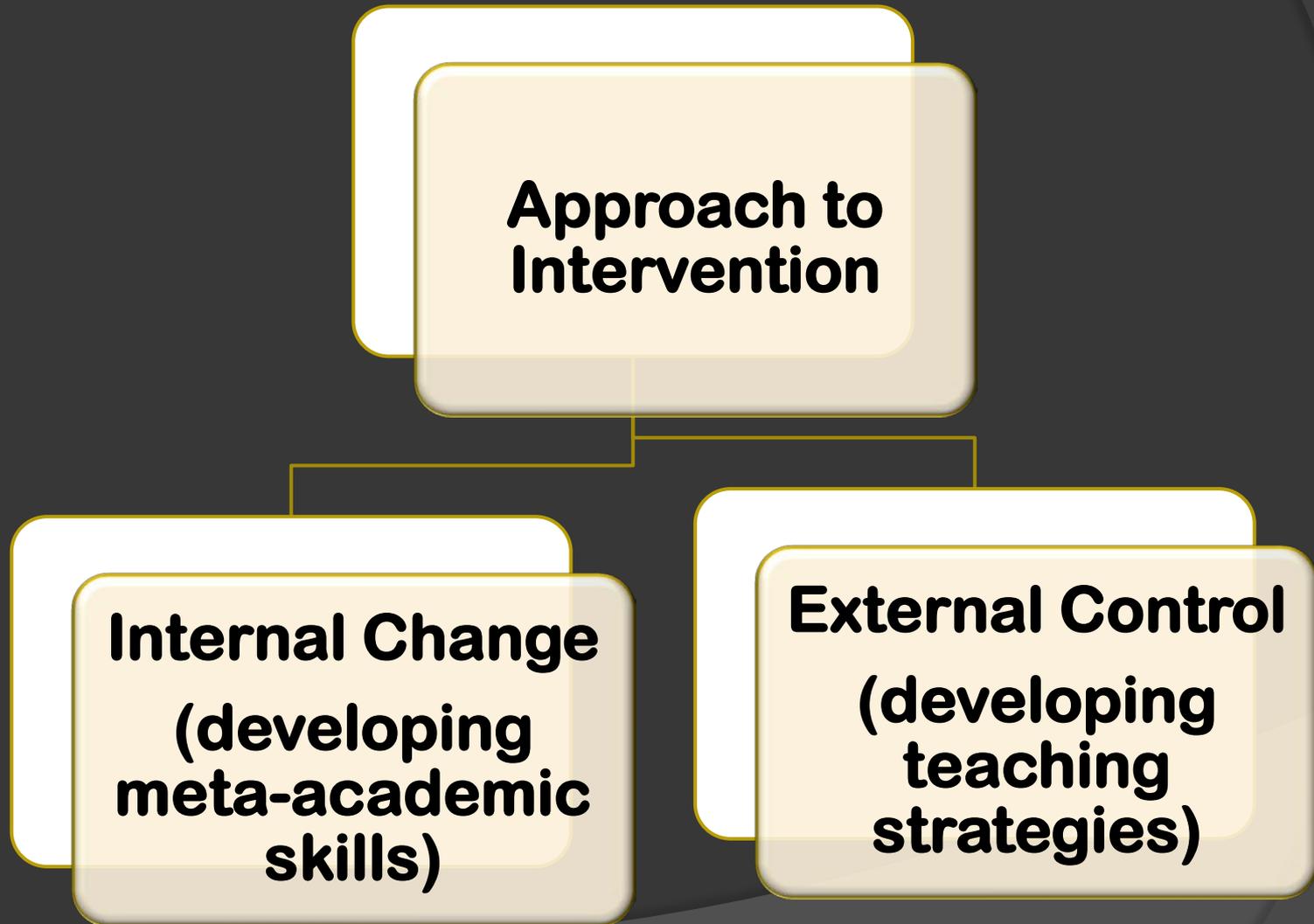
Coping with
Mental
Health Issues

Coping with
Medical
Issues

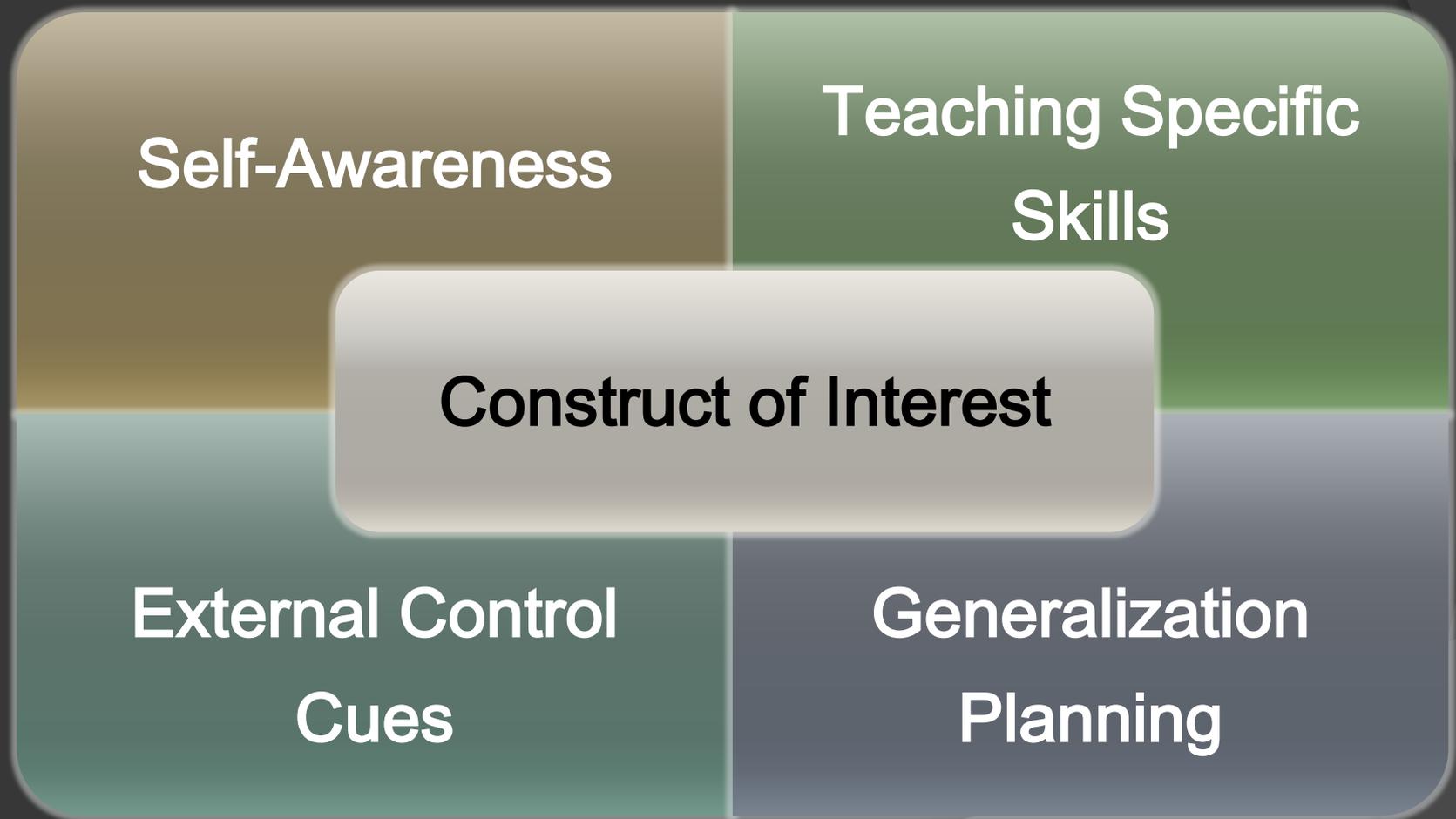
Current constructs

- ① **Executive Functions** consist of Emotional Regulation; Planning and organization; Self-monitoring; Working memory; Interference control; and Mental flexibility.
- ② **Social Skills** consists of Peer relationships; Group projects; Teacher relationships; Managing outside social pressures; Family relationships; and Impulse control.
- ③ **School Adaptation** consists of Grit and persistence; Decision making; Independent study skills; Implementation intentions; Test wiseness/grade management; Academic motivation.

Therapeutic model



Therapeutic Model of Coaching



Awareness Is The Key



Previous Research Results

- Developed 6-week intervention plans with 12 lessons for some of the 18 constructs (four right now)
- Have taught the program on Emotional Control, Decision Making, Impulse Control, and Self-monitoring to over 200 students at LB Pearson SB, EMSB, CSPI, and as part of the Together at School program of the Montreal Alouettes.
- Nearly all applications have been with High School students, but a lot of primary schools this year
- Effectiveness data have been presented in 29 posters or lectures at 9 international professional conferences
- School districts in Ottawa, ON; Brooklyn, NY; Gdansk-Oliwa, Poland; Newark, NJ; Surrey, BC; Lincoln, NE have started to implement the model in part or in its entirety



Previous Research Results

Global Findings

- Large improvements in: impulse control ($d = .34$); emotional control ($d = .44$); attendance ($d = .29$); homework completion ($d = .33$)
- Small to moderate improvements in: planning ($d = .21$); anxiety ($d = .18$); attention ($d = .23$); risky behaviours ($d = .17$); math skills ($d = .23$)
- No improvements in: grades ($d = .08$); peer social skills ($d = .09$); reading skills ($d = .01$)
- Large improvements have lasts for 12 months with no additional interventions—long-term effects are not clear

Partnership

Treatment Integrity

- Often atheoretical
- Based on consensus of literature
- Little evidence of generalization of research results
- Often copyrighted, manualized and costs \$
- Must follow methods exactly as in the published research
- Treatment integrity is monitored and enforced
- Individual or group evaluation



Open Source

- Theory driven
- Based on consensus of literature
- Model can be changed based on resources, needs of students, and systemic needs
- Users own the material, dynamic material, and free of charge
- Theory driven kernel is maintained, the implementation is flexible
- User feedback to developer to constantly improve intervention
- Individual or group kernel and implementation approach evaluation
- The kernel and implementation models are improved based on evaluation data

Proposed Program

- ◎ Proposed Implementation
 - Teachers are trained to implement the program as part of the regular day
 - Teachers receive consultation support at least once per week or when needed
 - Teachers provide input and help with changes
 - The goal is to save teachers time with discipline and other activities that interfere with instructional time
 - If teachers do not like the program, then we have not been successful

Bottom Line

- Flexible to alter the plan to meet your needs and your students needs
- Everything is free
- Consultation and trouble shooting
- Try out period in the fall
- Develop formal research questions for January

Proposed Program

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LESSON 4: POSITIVE REFOCUSING

- ⦿ A sample lesson from Emotional Regulation
- ⦿ Materials Required:
 - Blackboard
 - Lesson 4 worksheet
- ⦿ Skill to build:
 - ⦿ Understand the concept of positive refocusing
 - ⦿ Learn how to apply the strategy of positive refocusing to various situations

LESSON 4: POSITIVE REFOCUSING

Vocabulary to highlight/clarify:

- **Self-blame:** thinking that something that has happened is your own fault
- **Positive refocusing:** thinking about something positive instead of the negative emotions from an experience
- **Cope:** to deal with a situation successfully
- **Depression:** feeling very sad for a long time
- **Consequences:** the result of an action
- **Strategy:** a method used to achieve a goal

LESSON 4: POSITIVE REFOCUSING

- **RECAP and GOALS OF CURRENT CLASS:** Last class we talked about self-blame. We learned that sometimes we blame ourselves when bad things happen. Blaming ourselves for things that are not our fault can make us very sad or depressed. Last class we shared different situations in which we experienced self-blame and practiced thinking of more positive ways to think about those situations.
-
- The goal of today's lesson is to teach you another **POSITIVE** way to think about stressful situations. I am going to explain this strategy and give you examples of how it can be used in different situations. Then we will work together to practice using this strategy.

LESSON 4: POSITIVE REFOCUSING

- ⦿ **INTRODUCTION: Overview and definition of the adaptive strategy**
- ⦿ Today we will learn the strategy of **positive refocusing**. What is positive refocusing?
- ⦿ Thinking of JOYFUL and PLEASANT things instead of thinking about the stressful or negative experience that you have had.
- ⦿ By thinking or focusing on positive things or things that make you happy, you will think less about things that are making you sad or angry.
- ⦿ A positive coping strategy .
- ⦿ This can help you to feel happy very quickly, but *do you think that it is good to ignore the negative event all the time?*
- ⦿ No. Sometimes when we think about other things and ignore the problem, it doesn't go away. We then have to find other ways to cope with the problem later on.

LESSON 4: POSITIVE REFOCUSING

- ⦿ Has anyone ever done something that made them happy after experiencing a negative event? What did you do? (Suggest playing with friends or playing a game). Did it help you feel better?
- ⦿ How do you feel when you get sick with a cold or a fever? Are there things that you do to make yourself feel better?
- ⦿ • When we get sick we feel awful and sometimes it can make us upset.
- ⦿ • If we learn to refocus on positive things, like playing a game or talking with friends, it can help us forget about how crummy we feel.

LESSON 4: POSITIVE REFOCUSING

- ◎ **ACTIVITY:** Learn to recognize the stressful event and the accompanying emotion. Understand how to think about the situation and how to apply the positive refocusing strategy.
- ◎ **Case Example:** Sarah has cancer. She has to take medication every day. It makes her stomach ache and her head hurt. She gets lots of tests with needles and big machines. They're a little scary. She has to stay in the hospital a lot, but she has made many friends there. She loves playing board games with them, painting, and reading books. The nurses are really nice. They always smile and sometimes even bring jello or popsicles! She loves the wall paintings and stuffed animals in her room. It feels like home. Her family always visits and Sarah is even allowed to have sleepovers! Even though Sarah is sick, she fills her days with fun and lots of smiles.
 - *What are some of the negative things that Sarah has to experience at the hospital?*
 - *Are there things that help her feel better? What are they?*

LESSON 4: POSITIVE REFOCUSING

- ◎ **REINFORCEMENT & ASSESSMENT:** Learn how people change the way they think about a stressful situation and apply the positive strategy.
- ◎ **Practice Activity**
 - Ask adolescents to list different activities that make them happy and help them forget about negative situations. *What kinds of thoughts our activities help you feel better when you are sad about something that has happened?*
 - Have adolescents brainstorm together in groups of two or three.
 - *Now let's talk about our answers and make a list. I would like you to write these answers down on the worksheet as we go.*
 - Brainstorm with the students and write the list on the blackboard. They can copy these strategies down on the worksheet and keep it as a reminder of ways to help them focus on more positive things when they are feeling sad or upset.
 - i.e. thinking about fun or happy experience, thinking about family, playing specific games, talking to specific friends or family members, playing with a pet, going to the movies or the arcade, etc.



Vision for Collaborative Projects

To meet these goals, there must be:

- Solid research design
- Make a positive difference for students
- Have honest communication with teachers and other stakeholders
- All interventions work best when there is a collaborative team
- My commitment is to make a flexible model to meet a variety of individual and systemic needs



Open Source

- Theory driven
- Based on consensus of literature
- Model can be changed based on resources, needs of students, and systemic needs
- Users own the material, dynamic material, and free of charge
- Theory driven kernel is maintained, the implementation is flexible
- User feedback to developer to constantly improve intervention
- Individual or group kernel and implementation approach evaluation
- The kernel and implementation models are improved based on evaluation data

Individualization v. manualized

- Meet needs of teachers
- Meet needs of individual differences of students
- Meet needs of culture of school
- Profit from experiences and innovation of teachers
- Continuous improvement and re-evaluation



Results

- Student outcomes better with open source v. treatment integrity models
- Better implementation due to self-determination of teachers
- Constant improvement of ideas
- \$ out of the equation
- True partnership—not expert/top-down approach

And now...

- ⦿ Result is useful
 - ⦿ Implementation science is advanced
 - ⦿ Better outcomes for kids
 - ⦿ Teachers empowered
-
- ⦿ ...And we know that the old approach is not really science

Where we are?

- Four developed and evaluated—26 more to go
- All lessons are available in English, French, and Polish—should have Spanish soon
- Currently implemented in 31 schools on over 840 primary school students
- Indirect service model of implementation
- Applying to different populations
- Theoretical and psychometric work
- Assessment instruments needed
- Integrating families
- Integrating medical

Partnership Guidelines

- ◎ Four Option model
 - Just use the information
 - Use the information and give feedback
 - Evaluate validated programs
 - Evaluate experimental programs



Website

- ◎ www.mcgill.ca/connections/connectionslab/resources
- ◎ Available
 - Emotional Regulation
 - Partnership guidelines
- ◎ Next week
 - Test preparation
 - Persistence
 - Social engagement
- ◎ Winter—6 more

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