


SOUTHEASTERN
SCHOOL BEHAVIORAL HEALTH
CONFERENCE

April 15 - 16, 2021



COUNTERING THE EFFECTS OF COVID-19 ON CHILDREN'S MENTAL HEALTH-

UNIVERSAL SCREENING AND THE USE OF DATA

Dr. James McDougal

Professor & Coordinator,

Programs in School Psychology

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BIMAS₂, Senior Author

AGENDA



- Background & McDougal's Story
- Common behavioral health difficulties and COVID 19
- Screening and progress monitoring: Choosing measures
- The use of data for effective MTSS Implementation
- MTSS Results: School implementations and student outcomes

Background & Rationale

- About 20% of children present themselves with diagnosable disorders (*i.e., U.S. Department of Health and Human Services, 1999*)
- 3-6% of children with serious and chronic behavioral disorders (*Kauffman, 1997*)
- Progression of disorders is very predictable
 - Externalizing behaviors (severe tantrums, aggression, defiance)
 - Internalizing difficulties (anxiety, depression, suicide)

PREVALENCE & PROGRESSION:

EMOTIONAL AND BEHAVIORAL DISORDERS

McDougal's Story

A Mile Wide and A Mile Deep: Comprehensive Interventions for Children and Youth with Emotional and Behavioral Disorders and Their Families

Kevin P. Quinn and James L. McDougal
University at Albany, State University of New York

Evidence indicates the onset of serious behavioral problems predicts profound, widespread, and persistent problems across virtually every facet of development (e.g., educational, familial,

So, which is it? Are we unable or unwilling to affect substantially the course and prognosis of children and youth identified as having emotional and behavioral disorders (EBD)? Their current status within our schools and communities as well as the status of the services made available to them suggest it must be one or the other or, perhaps, a combination of both.

• Finally Its time to get serious about students' Emotional & Behavioral Health



I'VE WAITED A LONG TIME!

ESSA

Every Student Succeeds Act



ESSA Emphasizes children's mental health in the schools-
title 1 funds for MTSS,
funds for safe/health schools

McDougal's past ramblings

Implicit within a perspective of positive psychology is the assumption that environments can be promoted to foster individual strengths through a preventative focus and the development of positive institutions. Given that the development of positive institutions has direct implications



Psychology in the Schools, Vol. 41(1), 2004
Published online in Wiley InterScience (www.interscience.wiley.com).

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DOI: 10.1002/pits.10142

POSITIVE PSYCHOLOGY GOES TO SCHOOL: ARE WE THERE YET?

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Syracuse University

SANDRA M. CHAFOULEAS

University of Connecticut

JAMES L. McDOUGAL

State University of New York at Oswego

T. CHRIS RILEY-TILLMAN

McDougal's ramblings....



Psychology in the Schools, Vol. 42(5), 2005
Published online in Wiley InterScience (www.interscience.wiley.com).

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DOI: 10.1002/pits.20090

BRINGING RESEARCH INTO PRACTICE TO INTERVENE WITH YOUNG BEHAVIORALLY CHALLENGING STUDENTS IN PUBLIC SCHOOL SETTINGS: EVALUATION OF THE BEHAVIOR CONSULTATION TEAM (BCT) PROJECT

JAMES L. MCDUGAL

Syracuse City School District/State University of New York at Oswego

BONNIE K. NASTASI

Institute for Community Research, Hartford, CT

SANDRA M. CHAFOULEAS

- Increasingly schools across the nation are encountering behaviorally challenging students entering primary grade classrooms.
- The BCT utilizing (1) an intervention team approach, (2) behavioral consultation/ functional behavioral assessment, (3) positive behavioral interventions, (4) frequent progress monitoring, and (5) program evaluation.
- Results indicated resolution of the referral problem achieved in 75% of the completed cases, and that successful and unsuccessful cases

Yada, Yada...

Psychology in the Schools, Vol. 44(1), 2007
Published online in Wiley InterScience (www.interscience.wiley.com).

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DOI: 10.1002/pits.20200

PROMOTING BEHAVIORAL COMPETENCE: AN INTRODUCTION TO THE PRACTITIONER'S EDITION

DAVID N. MILLER

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JAMES L. MCDUGAL

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Northeastern University

SANDRA M. CHAFOULEAS

University of Connecticut

T. CHRIS RILEY-TILLMAN

East Carolina University



The widely discussed gap between research and practice has been a continuing problem in the fields of school psychology and education. In particular, the extent to which information gener-

Key Idea

Data makes to difference

Here's how?

Psychology in the Schools, Vol. 39(2), 2002
© 2002 Wiley Periodicals, Inc.

GOOD, BAD, OR IN-BETWEEN: HOW D BEHAVIOR REPORT CARD I

SANDRA M. CHAFOULEAS

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Temple University

JAMES L. McDOUGAL

Syracuse Cit

Psychology in the Schools, Vol. 42(6), 2005
Published online in Wiley InterScience (www.interscience.wiley.com).

© 2005 Wiley P
DOI: 10.1

WHAT DO DAILY BEHAVIOR REPORT CARDS (DBRCs) MEASURE? AN INITIAL COMPARISON OF DBRCs WITH DIRECT OBSERVATION FOR OFF-TASK BEHAVIO[™]

SANDRA M. CHAFOULEAS

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T. CHRIS RILEY-TILLMAN

Temple University

CARLOS J. PANAHON AND ALEXANDRA M. HILT

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School Psychology
Volume 23 Number
December 2008 148-16
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10.1177/082957350730769
<http://cjsp.sagepub.com>
hosted
<http://online.sagepub.com>

Development of a Change-Sensitive Outcome Measure for Children Receiving Counseling

Scott T. Meier

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James L. McDougal

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Achilles Bardos

University of Northern Colorado



or Intervention ing Assessment System



Psychology in the Schools, Vol. 44(1), 2007
Published online in Wiley InterScience (www.interscience.wiley.com).

USE OF OFFICE DISCIPLINE REFERRALS IN SCHOOL-W A PRACTICAL EXAMPLE

SHEILA M. CLONAN

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Oswego State University

SIGRID DAVISON

School Psychology Forum: RESEARCH IN PRACTICE

VOLUME 4 • ISSUE 2 • PAGES 1-14 • Summer 2010

The Use of Change-Sensitive Measures to Assess School- Based Therapeutic Interventions: Linking Theory to Practice at the Tertiary Level

Amanda L. Lannie

Devereux Center for Effective Schools

Robin S. Coddling

University of Massachusetts, Boston

James L. McDougal

State University of New York at Oswego

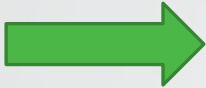
Scott Meier

Dougal, Psy.D.,

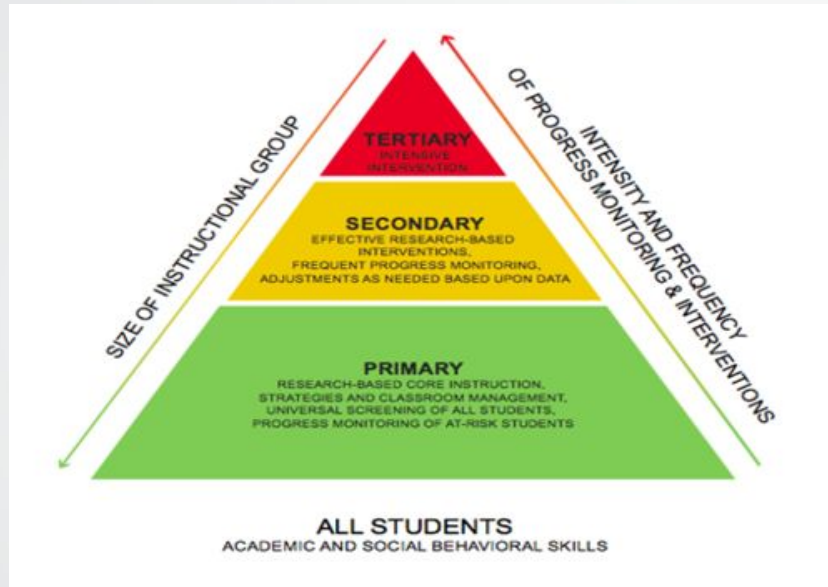
Bardos, Ph.D., &

er, Ph.D.

MANUAL

The evolution  prevention, public health model,
3 tiered models of support

MTSS
Multi Tiered
Systems of Support



RTI
Response to
Intervention

PBIS
Positive Behavioral
Interventions and
Supports

- ❖ **Data** is the foundation for all
- ❖ **Effective**= prevention, early Id & intervention, PM toward desired outcomes

ISF
Interconnected
Systems
Framework

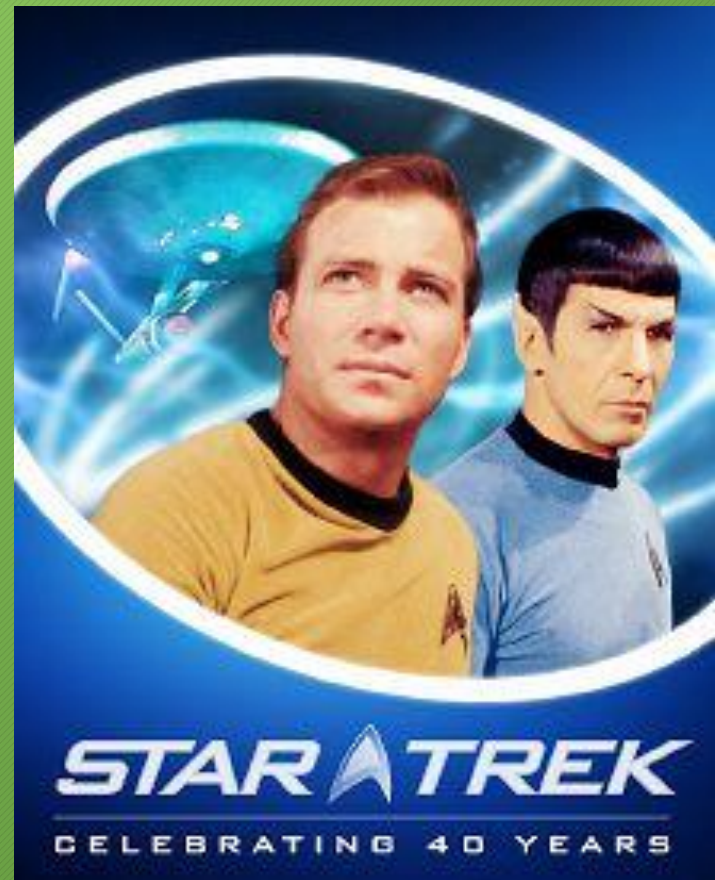
Problematic Territories we have settled with Prevention

- Prevalence in Children & Youth

- Visual impairment 6%
- Hearing loss (40 or more decibel) under 1%
- Speech sound disorders- young children 8- 9%

Effective School Approaches

- Screening for sensory and speech difficulties, begins in Pre K-K
- Accommodations for vision/hearing
- Early and intense treatment S/L



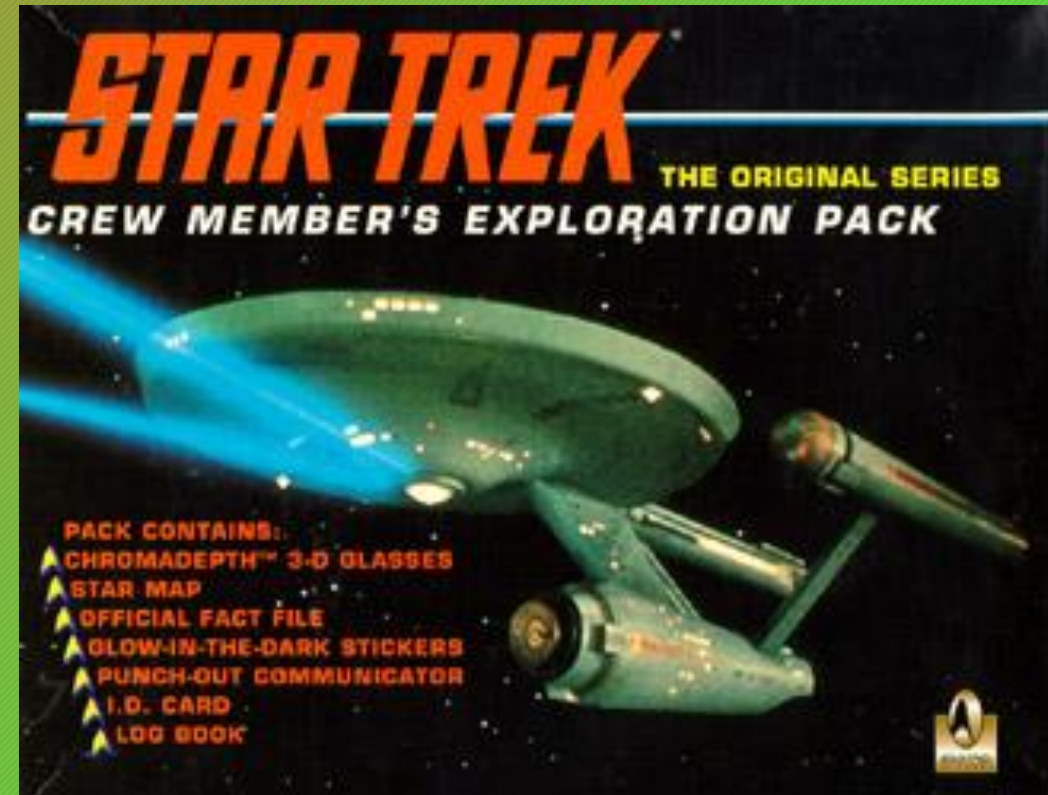
Problematic Territories we are exploring with Prevention

Prevalence in Children & Youth

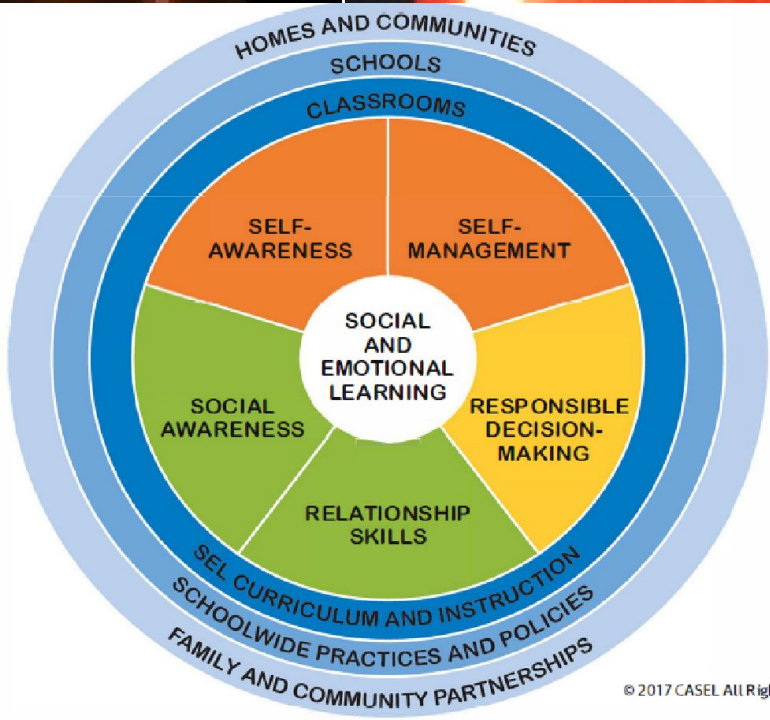
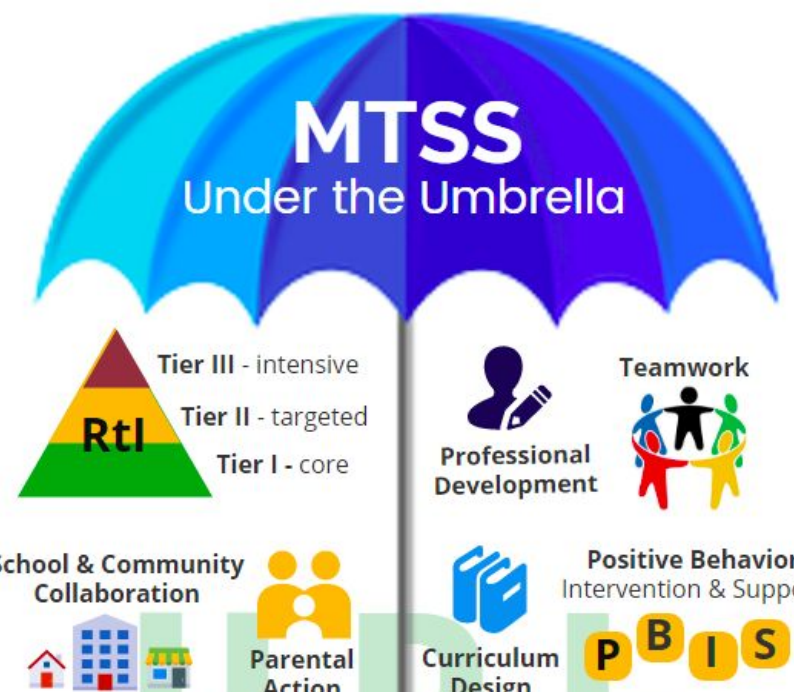
- Reading delays 20-25%,
- Dyslexia 5-17%

Effective School Approaches

- Screening for Pre-Literacy and Early Skills
- Tiered model: vary intervention intensity based on need.
- Use of data: UA, PM, Evaluation



The Final Frontier- *endeavor to persevere*



CHILDREN'S MENTAL HEALTH MATTERS

UP TO **1 IN 5** CHILDREN experience a mental health disorder in a given year.

\$247 BILLION is spent each year on children's mental health problems.

What Kids have been telling us for decades

Youth Risk Behavior Surveillance System (YRBSS) conducted by the CDC

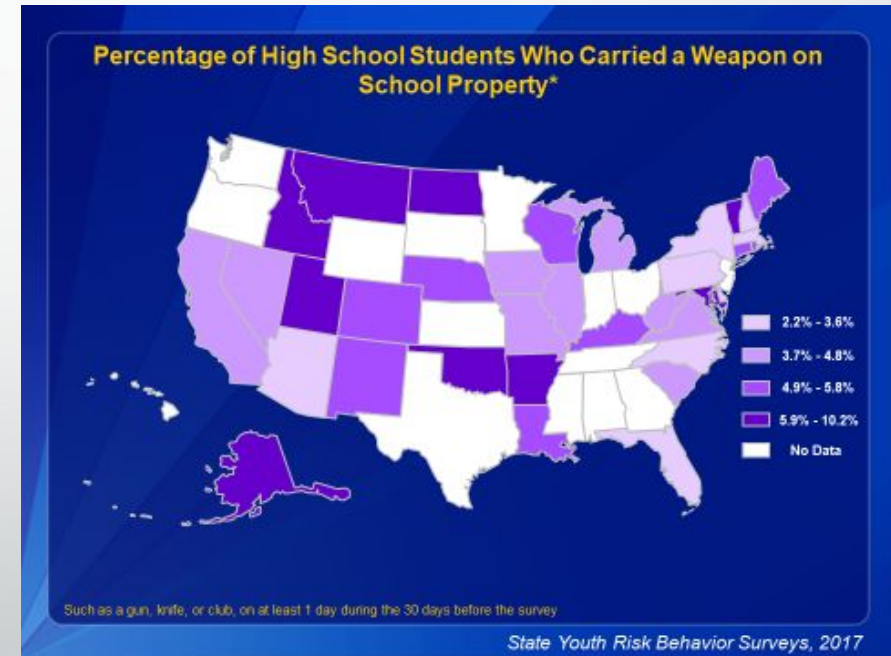
- The YRBSS is a national survey, conducted by CDC, provides data representative of 9th through 12th grade students in public and private schools in the United States
- developed in 1990 to monitor health behaviors that contribute markedly to the leading causes of death, disability, and social problems
- surveys are conducted every two years, usually during the spring semester
- From 1991 through 2019, the YRBSS has collected data from more than 4.9 million high school students in more than 2,100 separate surveys
- Available at:
<https://www.cdc.gov/healthyyouth/data/yrbs/overview.htm>

2019 Youth Risk Behavior Survey: SURVEY SAYS.....

Externalizing related outcomes

Within the last 12 months.....

- 6% carried a gun
- 7.4% were threatened or injured with a weapon in school
- 21-22% were in a physical fight
- 20% were bullied on school property
- 9-10% Did not go to school: as they felt unsafe



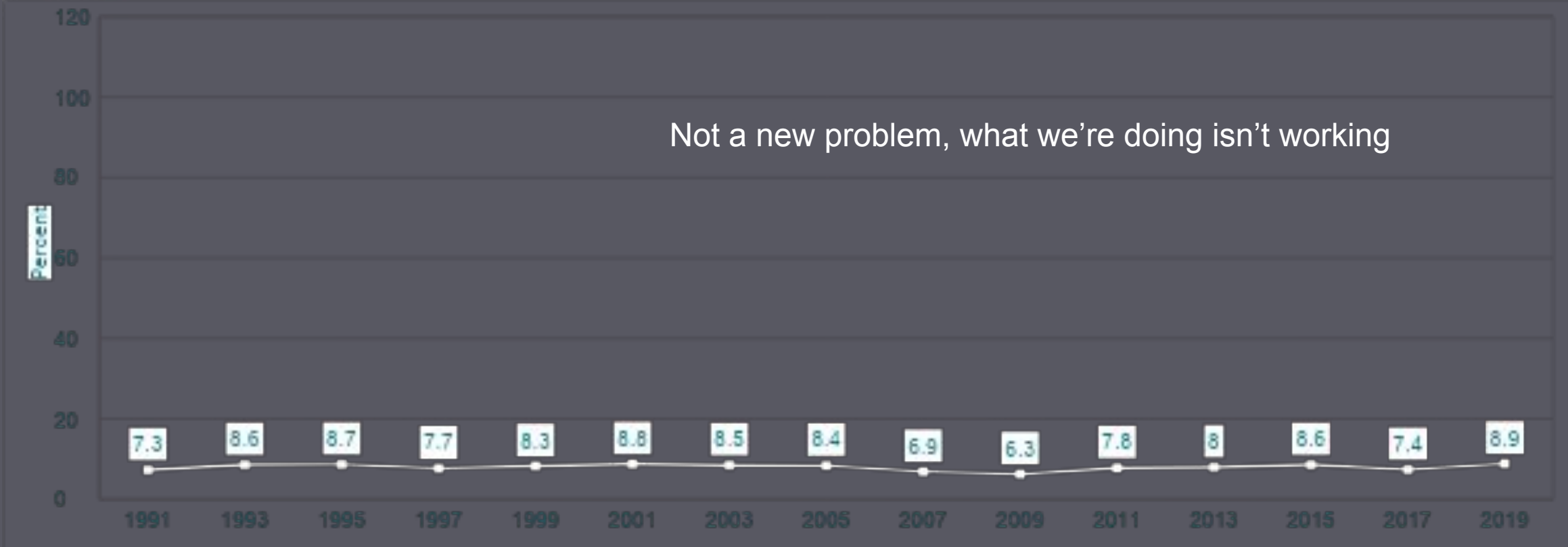
2019 Youth Risk Behavior Survey: SURVEY also says.....

Internalizing related outcomes *within the last 12 months*

- 36.7% report persistent feelings of hopelessness (up 5%)
- 18.6 % seriously considered suicide (up 2.5%)
- 15.7% developed a suicide plan (up 2%)
- 8.9% had attempted suicide (up 2%)
- 3.5% attempt, resulting injury, requiring DR./ ER (up .10%)



Percentage of High School Students Who Attempted Suicide,* 1991-2019†



Suicide

- Nearly 30,000 Americans commit suicide every year.
- Suicide is the 3rd leading cause of death for 15 to 24-year-olds and 2nd for 24 to 35-year-olds.
- On average, 1 person commits suicide every 16.2 minutes.
- Each suicide intimately affects at least 6 other people.



Internalizing/affect problems

Negative Long Term Outcomes

- Negative affect can significantly diminish social functioning, student well being, grades, attendance, and later life outcomes (employment, relationships)
 - Difficulties include anxiety, depression, compulsive/negative thoughts
 - This can lead to the ultimate tragedy
- Students with internalizing difficulties are generally under identified and not referred for support
 - Teacher referral and/or nomination procedures still under identify.
 - Universal screening procedures dramatically improve identification rates to intervene with students who are suffering.

COVID 19 and Children's Mental Health- what are we seeing?

- We are already seeing the overwhelming impact the pandemic is having on children
- Nationwide, emergency rooms have seen a 24-percent increase in mental health-related visits among children ages 5 to 11.
- The increase among older kids is even higher at 31-percent.
- In Las Vegas [surge in student suicides](#) pushed the Clark County School District to [resume in-person learning](#). In all, 18 children took their own lives during the nine months of school closures
- Longtime pediatrician **Dr. Dracker** says he has never witnessed so many children suffering from anxiety and depression with some cutting themselves or even trying to take their own lives.
- he has seen five to ten children admitted to the hospital each week.
- “It is absolutely horrible. 50-percent of my schedule every day is dealing with mental health issues of some sort,” Dr. Dracker said. “I’ve never spent more time with kids who are having psychological issues.

Source: School suffering: The COVID crisis in children, a special NBC3 newscast, Megan Coleman, Monday, February 22nd 2021

<https://cnycentral.com/news/local/school-suffering-the-covid-crisis-in-children>

COVID -19: Effects on Children's Mental Health- The summary = NOT GOOD

ELSEVIER
Psychiatry Research 290 (2020) 113143
Contents lists available at ScienceDirect
journal homepage: www.elsevier.com/locate/psychres

ELSEVIER
International Journal of Disaster Risk Reduction
Contents lists available at ScienceDirect
journal homepage: <http://www.elsevier.com/locate/ijdr>

ELSEVIER
Progress in Neuropsychopharmacology & Biological Psychiatry
Contents lists available at ScienceDirect
journal homepage: www.elsevier.com/locate/pnpb

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journal homepage: www.elsevier.com/locate/pnpb

Soa Chongsanyan Chongsin Lihak, 2020 Apr 1; 31(2): 74–79.
Published online 2020 Apr 1. doi: [10.5765/jacap.2000.10](https://doi.org/10.5765/jacap.2000.10)

PMCID: PMC7289477
PMID: [32595345](https://pubmed.ncbi.nlm.nih.gov/32595345/)

Coronavirus Disease 2019, School Closures, and Children's Mental Health

Cwan Ho Roh

PAK J Med Sci. 2020 May; 35(10):919-941. S67-S72.
doi: [10.10561/pms.35.10.019.919.2020](https://doi.org/10.10561/pms.35.10.019.919.2020)

Mental health considerations for children & adolescents in COVID-19 Pandemic

Masrith Imran,¹ Muhammad Zaheer,² and Zahid Parvez,³
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PAKISTAN JOURNAL OF MEDICAL SCIENCES

Journal List • Pak J Med Sci • v.35(10):919-941, 2020 May • PMID: 32595345

COVID-19 is an emerging, rapidly evolving situation.
[Public health information \(ICDC\)](#) | [Research information \(BMJ\)](#) | [SARS-CoV-2 data \(NCBI\)](#) | [Prevention and treatment info](#)

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Journal List • MMWR Morb Mortal Wkly Rep • v.69(45); 2020 Nov 13 • PMID: 32606659



MMWR Morb Mortal Wkly Rep. 2020 Nov 13; 69(45): 1675–1680.
Published online 2020 Nov 13. doi: [10.15585/mmwr.mm6945a3](https://doi.org/10.15585/mmwr.mm6945a3)

Mental Health–Related Emergency Department Visits Among Aged <18 Years During the COVID-19 Pandemic — United States, January 1–October 17, 2020

Rebecca T. Leeb, PhD,¹ Rebecca H. Ritvo, PhD,¹ Lakshmi Radhakrishnan, MPH,² Pedro Martinez-Bashid, PhD,⁴ and Kristin M. Holland, PhD⁵

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COVID-19 is an emerging, rapidly evolving situation.
[Public health information \(ICDC\)](#) | [Research information \(BMJ\)](#) | [SARS-CoV-2 data \(NCBI\)](#) | [Prevention and treatment info](#)

Journal List • Psychiatry Investig • v. 17(6); 2020 Jun • PMID: 324731



Psychiatry Investig. 2020 Jun; 17(6): 491–505.
Published online 2020 Jun 15. doi: [10.30773/pi.2020.0161](https://doi.org/10.30773/pi.2020.0161)

PMCID: PMC7324731
PMID: [32570296](https://pubmed.ncbi.nlm.nih.gov/32570296/)

Mental Health Effects of COVID-19 Pandemia: A Review of Clinical and Psychological Traits

Konstantinos Koutoungelos,^{1,2} Marina Economou,^{1,2} and Charalambos Papageorgiou^{1,2}

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Implications

National CDC youth risk Survey (2017) results indicate within the last 12 months;

- 37% of students felt hopeless
- 19% seriously considered suicide
- 16% developed a plan
- 9% attempted suicide- in a high school of 1000 students that's 90 KIDS!

Why is this concerning?

- Traditional methods under-identify students at risk for/suffering from internalizing problems
- Suicide is the 3rd leading cause of death for adolescents
- Each suicide increases risk for others
- Universal screening is time consuming but compared to a suicide response- not so much.

The Item 24 debacle-what we've learned



Education news. In context.

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'It's OK to not be OK:' How one high school saved lives with a 34-question survey

BY ANNE SCHEINKE • 23 HOURS AGO



COURTESY OF THE DISTRICT OF COLUMBIA

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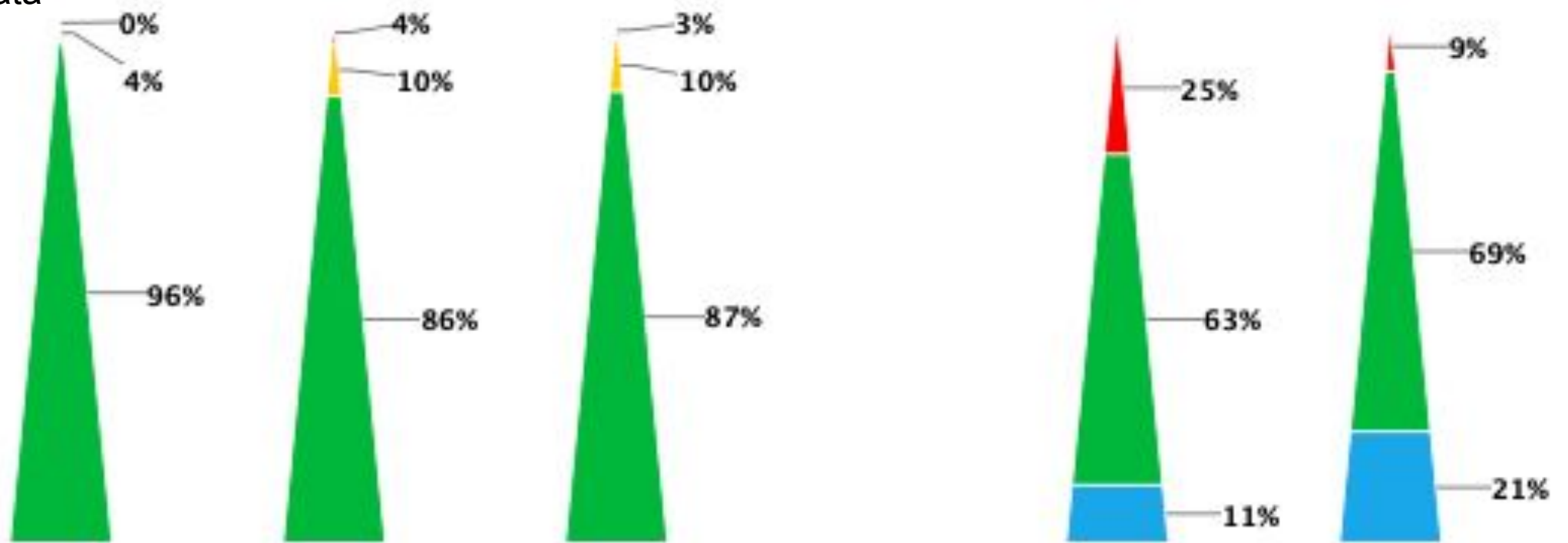
11/7/2019

rooms around the building, the school's ninth-graders whizzed through an mental health survey that would soon deliver real-time data to the group in the nce room. They were a triage team of sorts — particularly interested in the to question 24, which asked how often students had had thoughts of hurting ves within the past week.

The overarching message to students, said Jamie Murray, a district psychologist who helped coordinate the effort, was "It's OK to not be OK."

Their data and what we learned.....

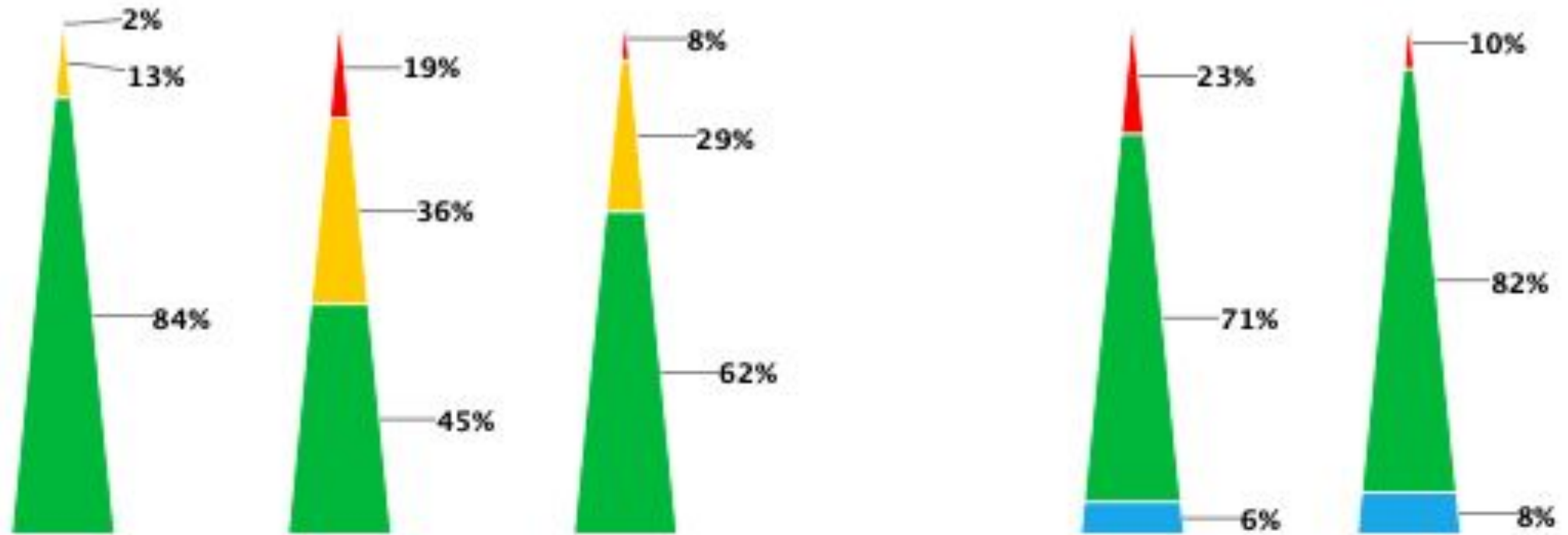
Teacher Screening Data
Fall 2018



Levels Of Risk	Conduct	Negative Affect	Cognitive/ Attention	Levels Of Functioning	Social	Academic Functioning
High Risk	3 (0%)	42 (4%)	33 (3%)	Concern	252 (25%)	94 (9%)
Some Risk	37 (4%)	100 (10%)	99 (10%)	Typical	630 (63%)	687 (69%)
Low Risk	953 (96%)	851 (86%)	861 (87%)	Strength	111 (11%)	212 (21%)
Total	993 (100%)	993 (100%)	993 (100%)	Total	993 (100%)	993 (100%)

Student Screening Data Fall 2018

What do you notice?



Levels Of Risk	Conduct	Negative Affect	Cognitive/Attention	Levels Of Functioning	Social	Academic Functioning
High Risk	20 (2%)	162 (19%)	68 (8%)	Concern	187 (23%)	82 (10%)
Some Risk	109 (13%)	299 (36%)	244 (29%)	Typical	592 (71%)	681 (82%)
Low Risk	702 (84%)	370 (45%)	519 (62%)	Strength	52 (6%)	68 (8%)
Total	831 (100%)	831 (100%)	831 (100%)	Total	831 (100%)	831 (100%)

What we learned?



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'It's OK to not be OK:' How one high school saved lives with a 34-question survey

BY ANN SCHEINKE • 26 HOURS AGO



The overarching message to students, said Jamie Murray, a district psychologist who helped coordinate the effort, was "It's OK to not be OK."

FACEBOOK TWITTER EMAIL

11/7/2019

- First the Importance of including student ratings at the secondary level.

Lesson 1: Teacher Ratings Compared to Student Self-Ratings



Fall 18 data

Teacher ratings

High Risk
Not High Risk
Total

Student Ratings

High Risk	Not High Risk	Total
50	12	62
98	672	770
148	684	832

Lesson 1: Teacher Ratings Compared to Student Self-Ratings



Fall 18 data

Student Ratings

Teacher ratings

High Risk
Not High Risk
Total

	High Risk	Not High Risk	Total
High Risk	50	12	62
Not High Risk	98	672	770
Total	148	684	832

First a Cautionary tale: Teacher Ratings Compared to Student Self-Ratings



Fall 18 data

Student Ratings

		High Risk	Not High Risk	Total
Teacher ratings	High Risk	50	12	62
	Not High Risk	98	672	770
	Total	148	684	832

Sensitivity = 0.34 That is the proportion of students who self identified as high risk and were also identified as high risk by a teacher.

WHAT DID THEY DO?

- **Intervening with high-risk students**
- **Increased school-based counseling services from community agencies**
- **Standardized referral process for counseling supports with a tracking system**
- **Training in nonsuicidal self-injury**
- **Updated Suicide protocols**
- **SHP-SEL Curriculum Delivery**
- **Assessing the need for a suicide prevention program**
- **MTSS/PLC meetings**
- **Psychoeducational groups on stress management, anxiety strategies, healthy relationships, coping mechanisms, mindfulness, etc.**
- **Mental Health School Campaign**

Canon City Schools—719.276.5700

101 N. 14th St Canon City, Colorado

BIMAS2 Self-Injury Continuum Protocol

Student shows signs and symptoms

Disclosure to a peer of thoughts of self-injury

Self-disclosure (BIMAS2)

School becomes aware of concerns of self-injury

Point person interviews student in a calm and reassuring demeanor

No active self-injury & No thoughts of suicide

Active self-injury No thoughts of suicide

No active self-injury but has thoughts of suicide

Active self-injury & thoughts of suicide

No Risk

Administer self-injury screener

Administer Columbia suicide screener

Determine Risk Level

Firearms: violence screening & re-entry meeting required

Low Risk

Moderate Risk

High Risk

Contact Parent

Contact Parent

Identify school contact person & supports
Assess psychosocial stressors
Consider student referral to mental health community agency
Upload to IC Mental Health Tab
Consider release of information

Complete Student Support Plan and/or Safe Plan w/ student & parent
Refer student to mental health community agency
Parent signs Notification of Self-injury
Upload to IC Mental Health tab
Release of Information

Psychosocial Stressors

- *Family history of suicide
- *Previous suicide attempt(s)
- *Mental health-clinical depression
- *Substance abuse
- *Feelings of hopelessness
- *Impulsive or aggressive tendencies
- *Cultural and religious beliefs that suicide is a noble resolution
- *Isolation, a feeling of being cut off from other people
- *Barriers to accessing mental health treatment
- *Loss (relational, social, work, or financial)
- *Physical illness
- *Easy access to lethal methods

If "Yes" on questions 6a & 6b

Crisis Services

- Parent has option to:
- Mobile Crisis Services in school
 - Parent opts to transport to Mental Health Agency
- Parent signs Notification of Self-Injury
Upload to IC Mental Health tab
Mental Health Flag

Mandatory Re-entry meeting to return to school. If no Mental Health safe plan is provided by mental health agency, move to the development of a school level Mental Health Safe Plan worksheet accompanies re-entry documentation

Protective Factors

- *Ability to cope with stress or frustration
- *Sense of responsibility to others
- *Social Supports
- *Has a reason to live
- *Religious beliefs
- *Positive therapeutic relationships
- *Engaged in work or school
- *Fear of death
- *Cultural, spiritual or moral attitudes against suicide

No active self-injury & No thoughts of suicide

No Risk

Identify school contact person & supports
Assess psycho-social stressors
Review at next BIMAS2 Screener

No concerns

Unable to reach Parent

Student not safe at home

Contact DHS

Parent unable to be reached

SRO: Child welfare check

CCHS Behavioral Health Supports

FBA BIP
 CARE
 IEP's and 504 Plans
 Wrap Around Supports
 Court Appointed Services
 Community Based Services
 Choice Points/ Cross Roads
 1:1/Small Group Counseling



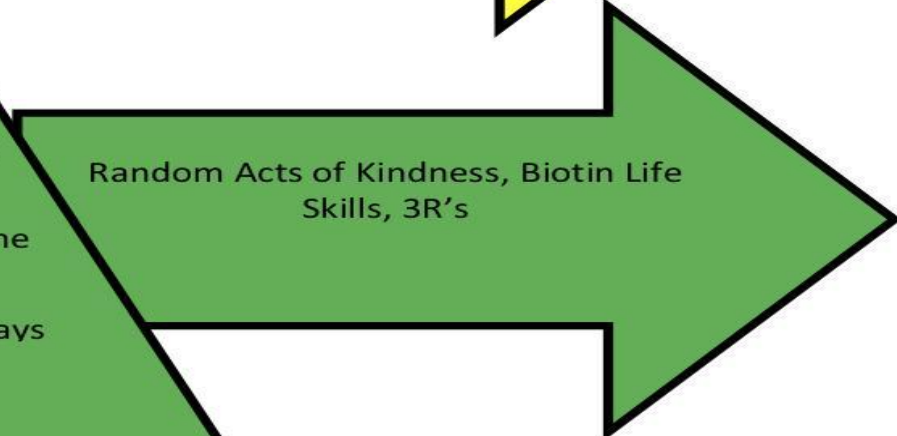
Targeted

Student Conduct Plan Counseling
 Student Behavior Contract
 Motivational Interviewing Small Group Intervention
 Check in, Check out IEP & 504 Plans
 Alternative Learning Environment (TOP) Educational plan (APAS)
 Administrative Conference
 Progress Monitoring Wrap Around Supports



Universal

SEL Curriculum Task Force Professional Development
 Mental Health First Aid Student Work Sessions
 Trauma Informed Care Sensory Opportunities Restorative Justice Discipline
 Physical Outlets
 Flexible Academic Routines Choices in Learning/Pathways
 Proactive Behavior Modeling
 Alternative to Suspension
 Tiger Link Crew 1:1 Technology SEL Universal Screener



How did it work?



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'It's OK to not be OK:' How one high school saved lives with a 34-question survey

BY ANNE SCHEINKE • 20 HOURS AGO



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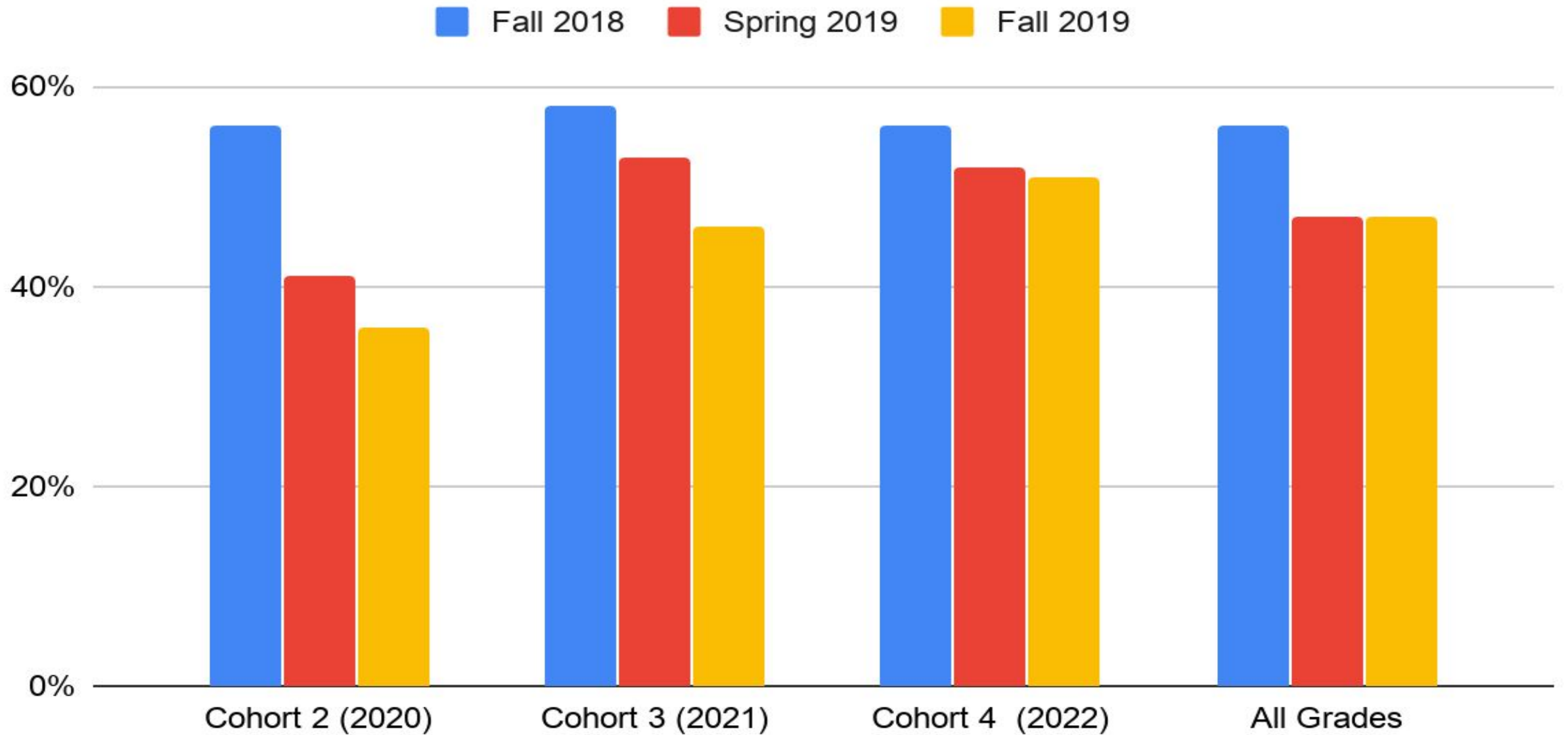
11/7/2019

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The overarching message to students, said Jamie Murray, a district psychologist who helped coordinate the effort, was "It's OK to not be OK."

Their data and what we learned.....

CCHS Negative Affect (60+) by Cohort - Student Report



Student Self-Reports of High Risk

Negative Affect T score 70+ and/or
item 24 at 3 or 4 (often/ very often)

	Spring 2019		Total
	High Risk	Not High Risk	
Fall 2018 High Risk	52	119	171
Not High Risk	46	615	661
Total	98	734	832

Student Self-Reports of High Risk from F 2018 to Sp2019

Negative Affect T score 70+ and/or
item 24 at 3 or 4 (often/ very often)

		Spring 2019		
		Not High Risk		
		High Risk	Risk	Total
Fall 2018	High Risk	52	119	171
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Student Self-Reports of High Risk from F 2018 to Sp2019

Negative Affect T score 70+ and/or
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		Spring 2019		
		Not High Risk		
		High Risk	Risk	Total
Fall 2018	High Risk	52	119	171
	Not High Risk	46	615	661
	Total	98	734	832

There were 171 students who self-identified as high risk in the fall. Of those 119 did not identify by the spring, a 70% reduction.

Summary: Common Behavioral Health Concerns

Externalizing

- Irritable, ODD, BD, CD, ASPD
- Comorbid/ Co-occurring ADHD, LD, thought disorders, and learning problems
- Also significant number with internalizing problems

Internalizing

- Anxiety, OCD and Depressive disorders all have an increased risk for suicide...
- Comorbid with social, learning, and adaptive problems.

Cognitive/ Attention

also related to problems in learning, conduct, and social skills

Change....



But what do we do ?

Shift our Approach RTC RTI

Reacting to Crisis (RTC)



Response to Intervention (RTI)



School Teachers Can Improve Students' Mental Health, Study Finds

- examined 43 studies that evaluated nearly 50,000 students who had received school-based mental health services
- **Mental health interventions that were integrated into the regular curriculum were the most effective.**

The Effectiveness of School-Based Mental Health Services for Elementary-Aged Children: A Meta-Analysis

Amanda L. Sanchez, MS, Danielle Cornacchio, MS, Bridget Poznanski, BS, Alejandra M. Golik, BA, Tommy Chou, MS, Jonathan S. Comer, PhD

J Am Acad Child Adolesc Psychiatry 2018;57(3):153–165.

Early Identification & Intervention

- Progression of disorders is predictable
- Early identification & intervention with children at risk for emotional behavior disorders appear to be the “most powerful course of action for ameliorating life-long problems associated with children at risk for EBD” (Hester et al., 2004)
- Younger children are more likely to be responsive and maintain positive outcomes from early prevention/ intervention programs (Bailey, Aytch, Odom, Symons, & Wolery 1999)

U.S. Statistics On Mental Health

- About 20% of children present themselves with diagnosable disorders (i.e., U.S. Department of Health and Human Services, 1999).
- 3–6% of children with serious and chronic disorders (Kauffman, 1997).

YET!!!!

- **Behavior / Emotional screening occurs in less than 15% of districts across the U.S.**
- **Why?**

What Are the Barriers

- TIME, MONEY, STAFF

- It requires change...

We must be willing to give up less effective but comfortable practices to learn and embrace uncomfortable but more effective ones.

- UA FEARS

- Overwhelming ID
- If we ID we'll have to do something
- If we ID we'll have to do something
- Parental Consent confusion

UNIVERSAL SCREENING

for MTSS

The purpose of universal screening is to detect small problems before they become **BIG** problems

vision



reading



behavior



HOW?



Universal screening in **ACADEMIC** content areas involves students completing various academic tasks

Universal screening for **BEHAVIOR** involves teachers completing rating scales designed to measure how frequently students demonstrate certain behaviors at school

In **BOTH** cases, universal screeners should be:





MTSS UA and PM Measures selection and options

Shortcomings of Traditional Behavior Rating Scales

- Behavior Rating Scales were developed for diagnostic purposes- identifying individuals in different groupings
- Lengthy, Not change sensitive, Impractical for PM
- Behavior monitoring parallels the evolution of CBM within RTI
Emphasis on reliable and valid procedures for screening and progress monitoring
- These differences are usually “trait-related” and not likely to evidence short term change
- Most diagnostic scales are time consuming – meet with resistance

Selecting a Universal Screening Measure: Technical Adequacy Considerations

Norms-utility

- sample populations based on census data, includes clinical and typical samples

Reliability-accuracy

- internal consistency
- Test retest
- Inter-scorer

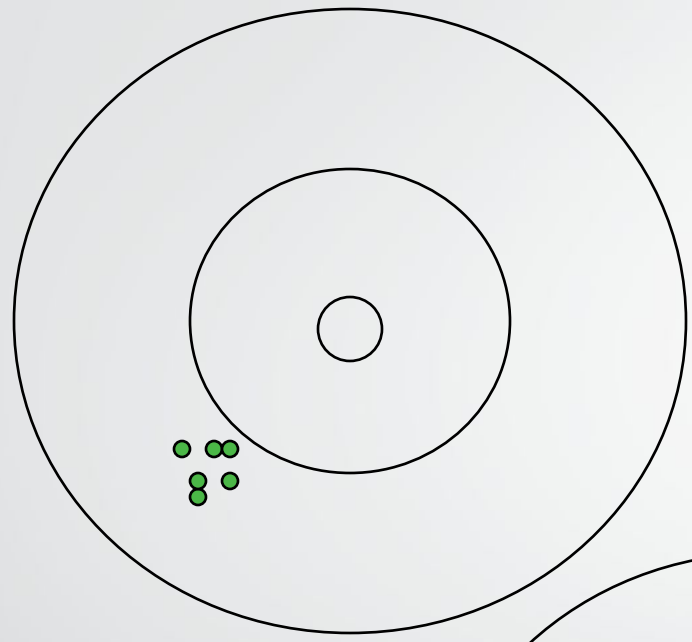
• Validity-meaningful, screening ability

- Content
- Concurrent
- Predictive-Screening Accuracy

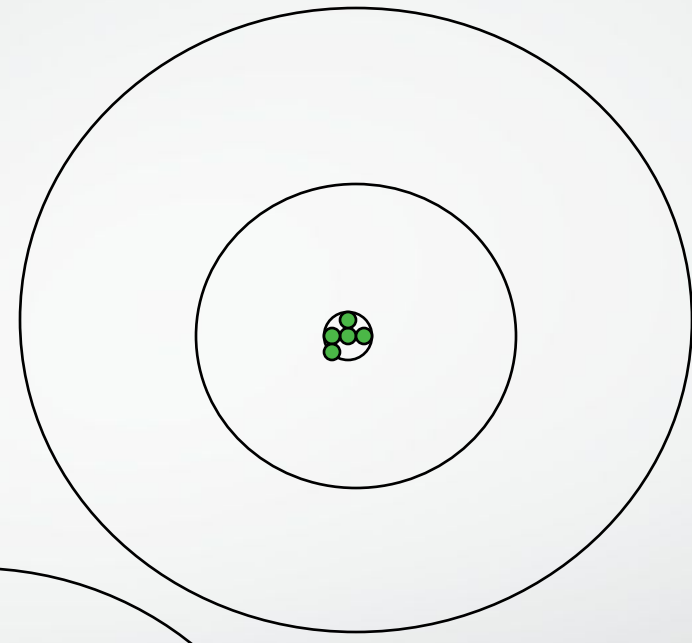
Reliability: is the test
Accurate/
Consistent?

Validity: is the test
meaningful?

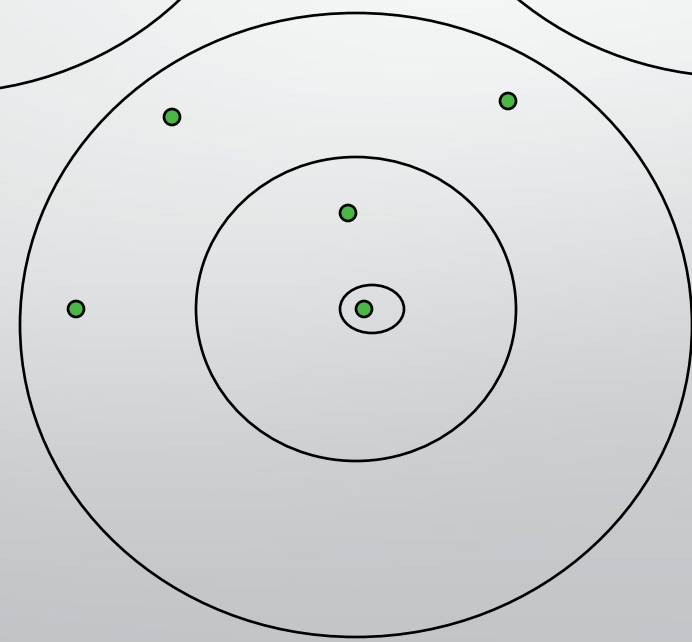
Reliable – not valid



Reliable & Valid



Not reliable or valid



- Tests can be reliable but not valid
- Yet, unreliable test can never be valid

Psychometric Levels for Screening Measures

Is it accurate

Very High	> .90
High	.80 – .89
Acceptable	.70 – .79
Moderate/Acceptable	.60 – .69
Low/Unacceptable	< .59

Is it meaningful

Very high	>.50
High	.40-.49
Moderate/Acceptable	.21-.40
Low/Unacceptable	<.20

How useful is it for screening purposes

Classification Statistics- Efficiency, Sensitivity, Specificity

- .70 to .74 Moderate/Acceptable
- .75 to .79 Acceptable
- .8 to .89 High
- .9 and up Very high

Screening Classification Stats

Commercial Scales

Screener	Rater	Sensitivity	Specificity	Positive Predictive Value	Negative Predictive Value
BESS	Parent	.53-.82	.91-.96	.50-.73	.92-.97
	Teacher	.53-.80	.90-.95	.47-.77	.92-.96
	Self	.52-.66	.93-.96	.59-.75	.91-.95
BIMAS	Parent	.80	.78	.55	.92
	Teacher	.84	.86	.68	.93
	Self	.76	.69	.55	.85
SSIS	Not provided				
SSBD	Not provided				

Good resources for selecting UA screeners

- Source: Jenkins et al., 2014. A critical review of five commonly used social-emotional and behavioral screeners for elementary or secondary schools. Contemporary School Psychology.
- School-Wide Universal Screening for Behavioral and Mental Health Issues: Implementation Guidance
- <https://education.ohio.gov/getattachment/Topics/Other-Resources/School-Safety/Building-Better-Learning-Environments/PBIS-Resources/Project-AWARE-Ohio/Project-AWARE-Ohio-Statewide-Resources/Screening-Guidance-Document-Final.pdf.aspx>



Selecting MTSS Measures: Progress Monitoring

For Progress Monitoring

- Is it sensitive to change? (most diagnostics tests are not)
- Will it reflect student progress/intervention response?
- Easy to administer/ able to be frequently administered?
- Useful across student groups, programs, treatments, & tiers of intervention- will it give school teams useful information?

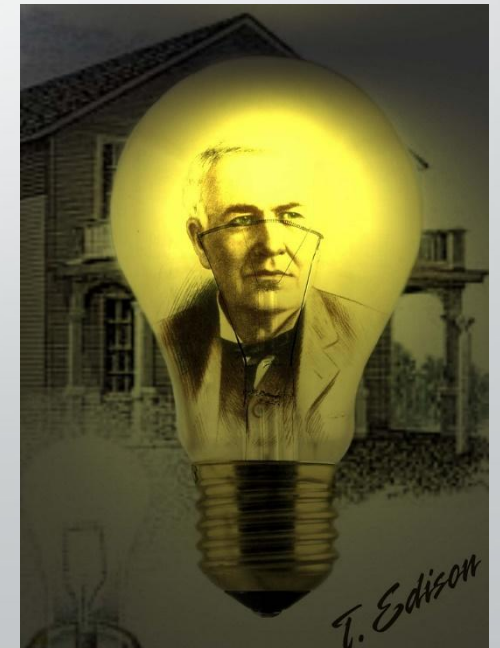


Issues in change sensitivity

- 1986 comparison of three depression scales and concluded "that rating devices can by themselves produce differences larger than those ordinarily attributed to treatment
- Lambert, et al. 1986
- By 1994, growing evidence to suggest there are reliable differences in the sensitivity of instruments to change.
- In fact, the difference between measures is not trivial, but large enough to raise questions about the interpretation of research studies
- Lambert, 1994

Dr. Scott Meier- The “Edison” of change sensitivity

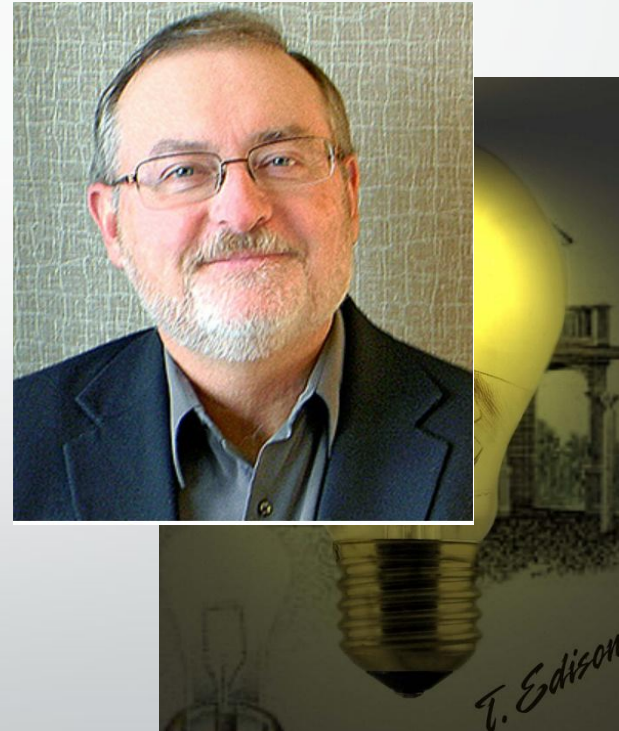
- Meier (1997, 1998) developed Intervention Item Selection Rules (IISRs) designed to identify intervention-sensitive items
- He considered test items as differing along a trait-state continuum, and
- So different test construction procedures are necessary to select items sensitive to results of psychosocial interventions.
- Intervention-sensitive items should change in to response to an intervention and remain stable over time when no intervention is present





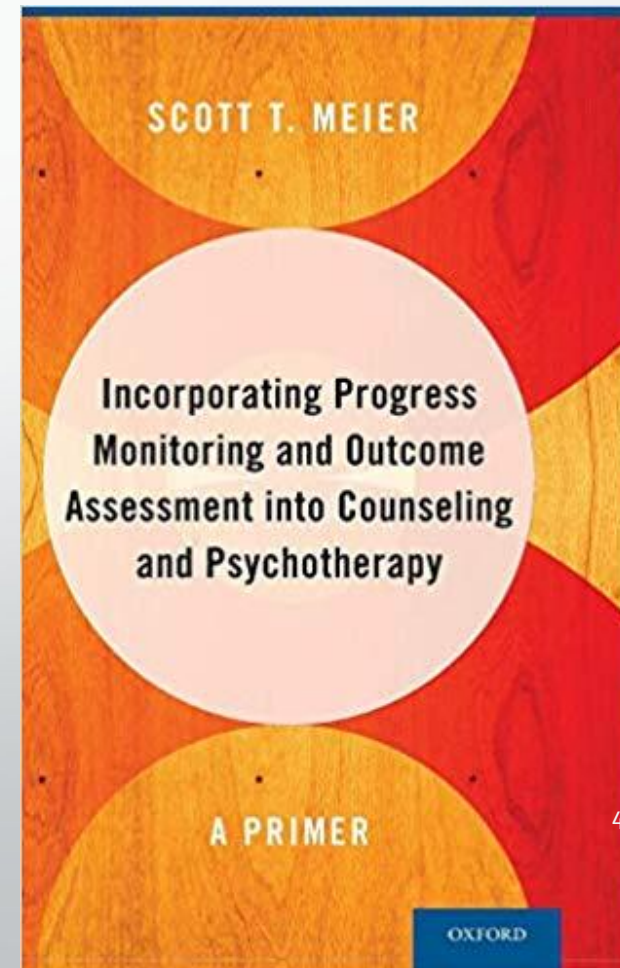
Meier on change sensitivity

- Creating change sensitive measures
- Intervention Item Selection Rules
- Now you get the “Edison” thing



Meier: Progress Monitoring and Outcome Assessment

- Examine student performance frequently, over time, to evaluate response to instruction and intervention (RtI2).
- Produces clinical data for feedback about client progress during intervention
- Also used for outcome assessment, produces data about the amount and type of change from the start to the end of therapy (Meier, 2014).



4/5/2021

Feedback Improves Outcomes

- When used appropriately, the primary benefit of PM measures is the feedback they provide about clinical progress
- More specifically, research has documented that PM measures can identify child and adolescent clients who are failing to improve or worsening, allowing clinicians to reconsider the provided interventions in the light of possible treatment failure

MTSS Measures: Important Considerations

Important Questions:

- Does the measure assess strengths and risk?
- Can it inform intervention design (consider the scales included)?
- Is it useful for Screening **and** Progress Monitoring (consider how the test was developed- traditional vs. change sensitive)?
- Is it useful for evaluation- can it be used to assess interventions in tiers 1-3, across ages, settings, raters, and programs?
- Most importantly- is it technically adequate for UA and PM? See Psychometric Slide earlier.



INTRODUCING THE



**Behavior Intervention
Monitoring Assessment System**

WWW.BIMAS2.COM

By James L. McDougal, Psy. D., Achilles N. Bardos, Ph.D., & Scott T. Meier, Ph.D.

Three authors coming together from three different perspectives

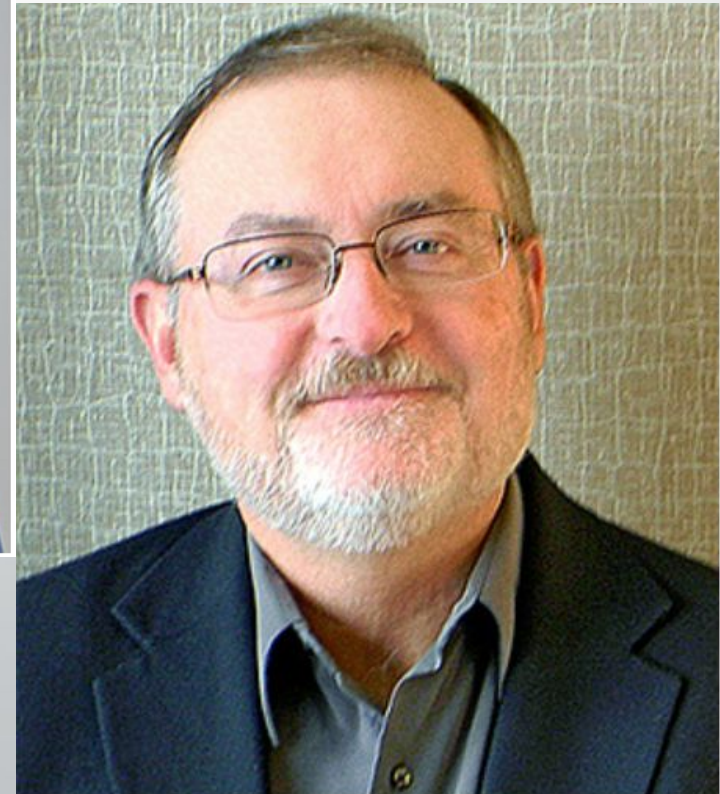


James L. McDougal



Achilles N. Bardos

Scott T. Meier



What is the BIMAS?

A brief behavior rating scale designed for :

Screening


- detect students in need of further assessment
- identify areas of behavior concerns and adaptive skills

Progress Monitoring

- System-wide interventions (Tier I- PBIS; SEL)
- Small groups interventions (Tier II)
- Interventions for individuals (Tier III)

Program Evaluation

- Assess what programs work best and with what groups of students.



A multi-informant web-based delivered
assessment system

- **RATINGS** available for:

- Parents

- Teacher

- Self (12 -18 yrs old)

- Clinician

BIMAS (standard) OVERVIEW

BEHAVIORAL CONCERN SCALES

Conduct

anger management problems, bullying behaviors, substance abuse, deviance

Negative Affect

anxiety, depression

Cognitive/Attention

attention, focus, memory, planning, organization

ADAPTIVE SCALES

Social

social functioning, friendship maintenance, communication

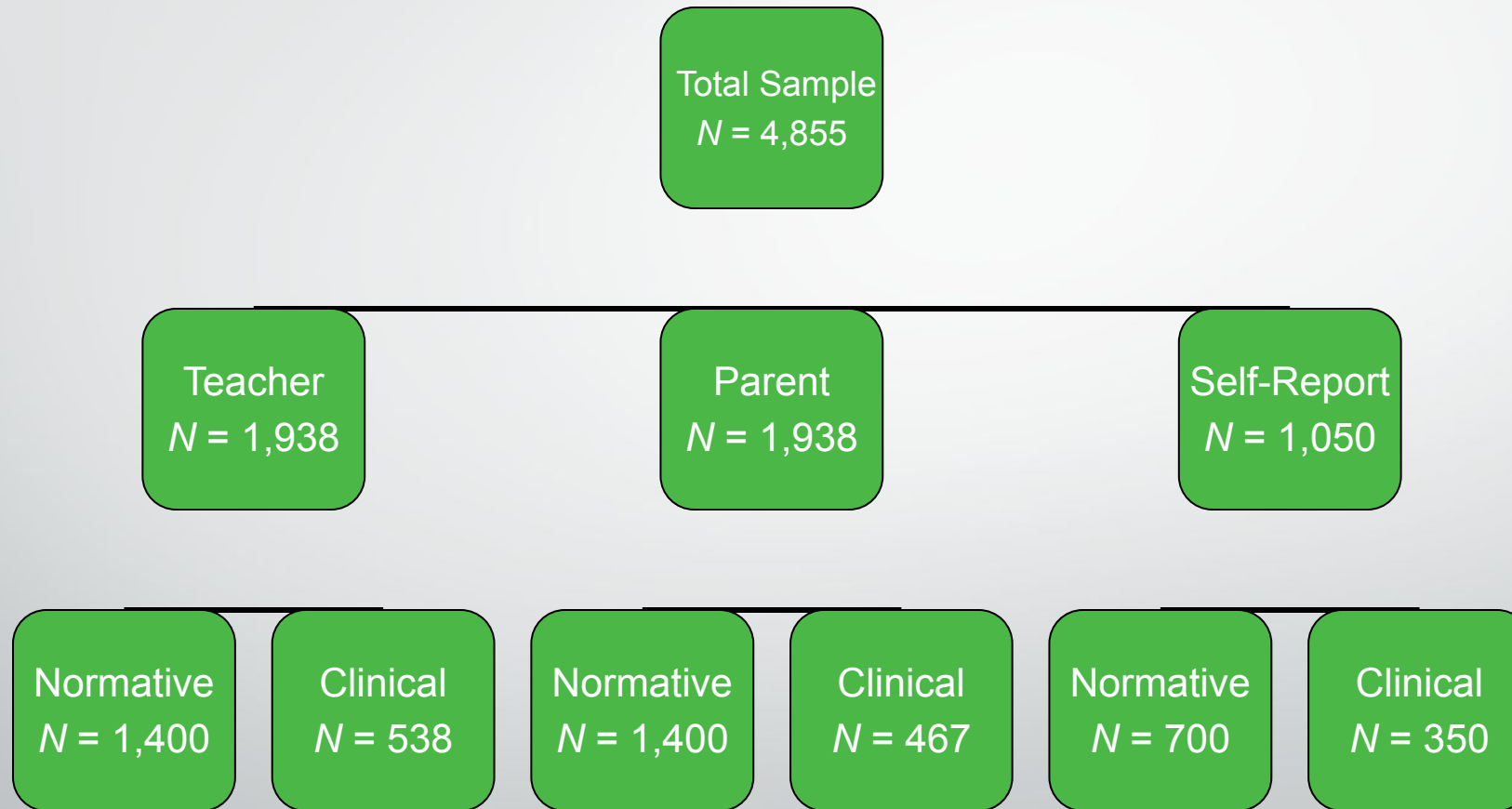
Academic Functioning

academic performance, attendance, ability to follow directions

Bimas overview

BIMAS Scales	<i>T</i>-score	Scale Descriptors
Behavioral Concern Scales	$T = 70+$	High Risk
	$T = 60-69$	Some Risk
	$T = 60$ or less	Low Risk
Adaptive Scales	$T = 40$ or less	Concern
	$T = 41-59$	Typical
	$T = 60+$	Strength

Large Normative Sample



THE BIMAS Clinical Samples (N=1,355)

Clinical Diagnoses of the samples rated by teachers, parents and students themselves.							
Clinical Group	Teacher		Parent		Self		Total
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>
DB	123	22.9	70	15.0	65	18.6	258
ADHD	109	20.3	117	25.1	89	25.4	315
Anxiety	55	10.2	67	14.3	56	16.0	178
Depression	60	11.2	73	15.6	62	17.7	195
PDD	95	17.7	86	18.4	65	18.6	246
LD	45	8.4	--	--	--	--	45
DD	30	5.6	--	--	--	--	30
Other	21	3.9	54	11.6	13	3.7	88
Total	538	100.0	467	100.0	350	100.0	1355

Race/Ethnicity Distribution

Highly comparable to the most recent U.S. Census

Form			Asian	African American	Hispanic	White	Other	Total
Teacher	Total	N	55	218	203	836	50	1361
		%	4.0	16.0	14.9	61.4	3.7	
	Census	%	3.8	15.7	15.1	61.9	3.5	
	Difference	%	0.22	0.29	- 0.22	-0.47	0.18	
Parent	Total	N	30	214	207	873	75	1400
		%	2.2	15.3	14.8	62.4	5.4	
	Census	%	3.8	15.7	15.1	61.9	3.5	
	Difference	%	- 1.65	- 0.39	- 0.33	0.47	1.89	
Self-Report	Total	N	28	110	107	433	25	703
		%	4.0	15.6	15.2	61.6	3.5	
	Census	%	3.8	15.7	15.1	61.9	3.5	
	Difference	%	0.23	- 0.07	0.09	- 0.29	0.03	

Cronbach's Alpha: *scale reliability*

or consistency- how closely related a set of items are as a group

BIMAS Rating Form	Behavioral Concern Scales			Adaptive Scales	
	Conduct	Negative Affect	Cognitive/ Attention	Social	Academic Functioning
Parent	.87	.82	.90	.84	.77
Teacher	.91	.85	.91	.85	.81
Self-Report	.88	.85	.87	.83	.75

Determining Validity: Screening tools

how well does it assess level of student concern?

- Cohen's d (effect size). *Difference in scores between clinical and typical populations*
- Classification Statistics
 - *Sensitivity*
 - *Specificity*
 - *Correct classification rate/ efficiency*

need all 3



The Teachers as screening agents

BIMAS–T scores for Clinical sample

BIMAS-T Standard Scales	Clinical Sample			Cohen's <i>d</i>
	<i>N</i>	<i>M</i>	<i>SD</i>	
Conduct	516	63.5	10.9	1.3
Negative Affect	537	66.4	10.4	1.6
Cognitive/Attention	538	66.6	9.8	1.7
Social	538	35.6	10.3	-1.4
Academic Functioning	538	40.2	9.8	-1.0

Note. Clinical *M*s (*SD*s) compared to values from the normative sample ($N = 1,361$, $M = 50$, $SD = 10$).

Cohen's *d* values of $|0.2|$ = small effect, $|0.5|$ = medium effect, and $|0.8|$ = large effect.

Classification Accuracy of BIMAS–Teacher Scales

Classification Accuracy Statistic	Full Range of Scores	Cut-Scores
Overall Correct Classification	85.2%	82.5%
Sensitivity	83.5%	80.1%
Specificity	85.8%	83.4%
Positive Predictive Power	68.4%	64.9%
Negative Predictive Power	93.4%	91.6%



The Parents as screening agents

BIMAS-P

Clinical vs. Non-Clinical samples

BIMAS-P Standard Scales	Clinical Sample			Cohen's <i>d</i>
	<i>N</i>	<i>M</i>	<i>SD</i>	
Conduct	467	60.3	10.5	1.0
Negative Affect	467	61.5	10.3	1.1
Cognitive/Attention	467	60.7	9.9	1.1
Social	467	38.4	9.9	-1.2
Academic Functioning	467	40.4	7.9	-1.0

Note. Clinical *M*s (*SD*s) compared to values from the normative sample ($N = 1,400$, $M = 50$, $SD = 10$).

Cohen's *d* values of $|0.2|$ = small effect, $|0.5|$ = medium effect, and $|0.8|$ = large effect.

Classification Accuracy of BIMAS–Parent Scales

Classification Accuracy Statistic	Full Range of Scores	Cut-Scores
Overall Correct Classification	78.3%	78.6%
Sensitivity	80.1%	73.4%
Specificity	77.7%	80.3%
Positive Predictive Power	54.6%	55.4%
Negative Predictive Power	92.1%	90.1%



The Students as screening agents

BIMAS–Self ratings Clinical vs. Non-Clinical

BIMAS-P Standard Scales	Clinical Sample			Cohen's <i>d</i>
	<i>N</i>	<i>M</i>	<i>SD</i>	
Conduct	350	57.3	9.7	0.7
Negative Affect	350	59.2	9.7	0.9
Cognitive/Attention	350	57.3	8.2	0.8
Social	350	41.4	9.7	–0.9
Academic Functioning	350	42.3	8.3	–0.8

Note. Clinical *M*s (*SD*s) compared to values from the normative sample (*N* = 703, *M* = 50, *SD* = 10).

Cohen's *d* values of |0.2| = small effect, |0.5| = medium effect, and |0.8| = large effect.

Classification Accuracy of BIMAS–Self-Report Scales

Classification Accuracy Statistic	Full Range of Scores	Cut-Scores
Overall Correct Classification	71.5%	71.8%
Sensitivity	76.3%	67.1%
Specificity	69.1%	74.1%
Positive Predictive Power	55.3%	56.5%
Negative Predictive Power	85.3%	81.9%

BIMAS-2 Flex Assessments

- 1-3 item scales that can be administered more frequently
- Similar to TBRC, DBR, IEP or treatment goal
- Can be student centered or based on the goals of intervention



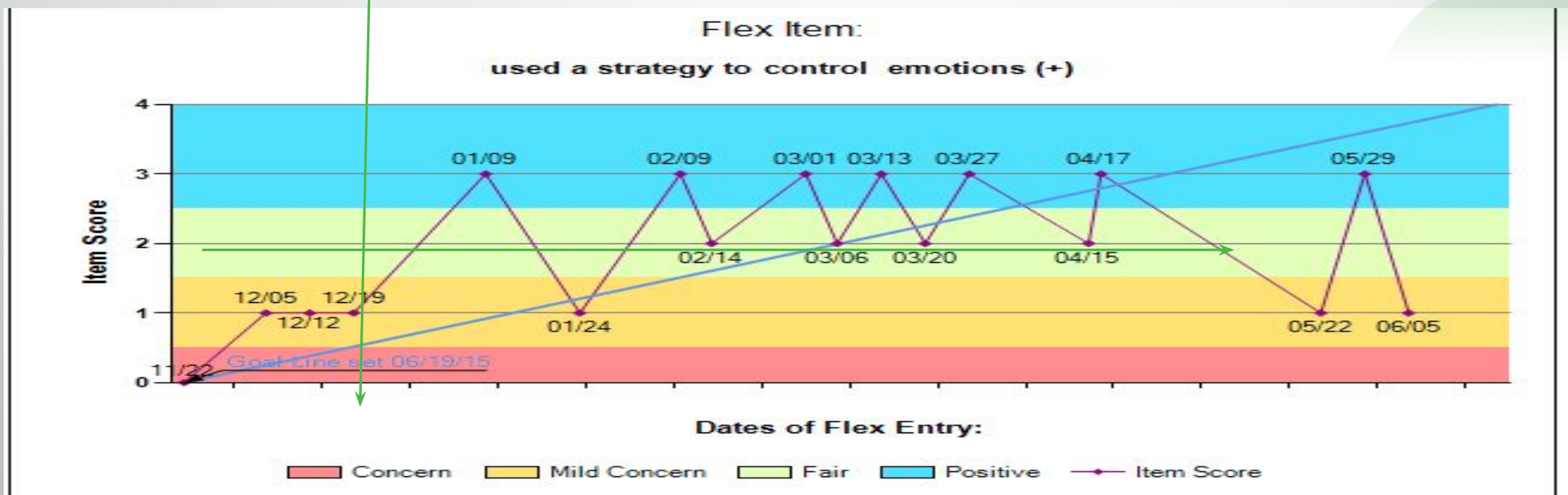
BIMAS Flex features

- List of specific behavioral items corresponding to each Standard item for progress monitoring
- provide frequent narrow band assessments that can be validated with the Standard
- User can select items based on elevated Standard scale score for an individual student
 - customized treatment goals
- Ability to make notes to describe specific behaviors, response to services, or to add other comments
- Teacher, Parent, Self and Clinician forms

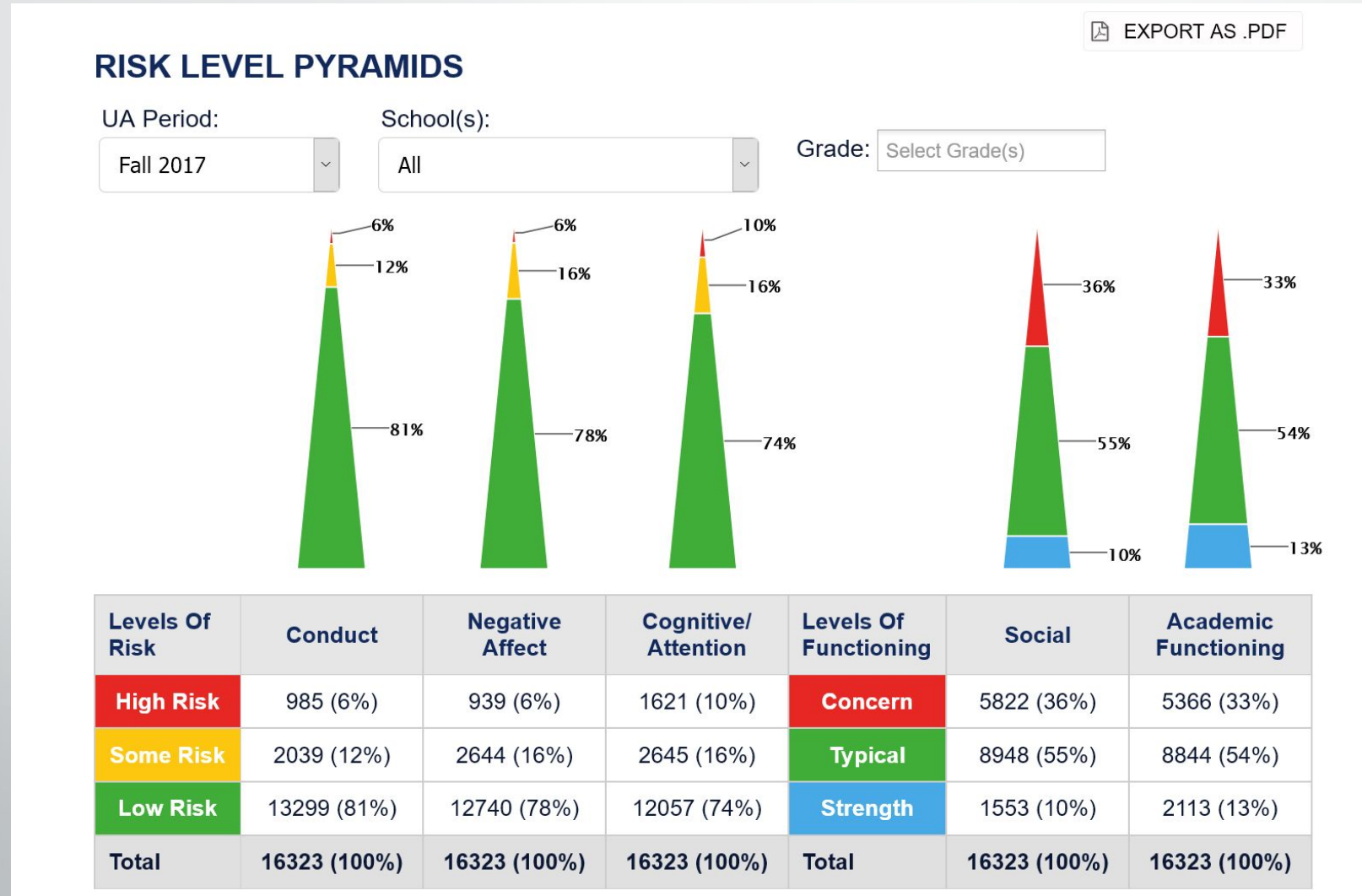
Individual Progress Monitoring

Case Study

11/14 = 78%
moderately
effective



Use of data: Identify areas of need, inform intervention design



Use of data: Identify students in need of extra support

CLASS/GROUP STUDENT SCORES

UA Period:

Summer 2016

School:

Parkview Middle School

Grade:

Any

Teachers:

All

Student Name	MTSS	Conduct	Negative Affect	Cognitive/ Attention	Social	Academic Functioning
Friesen, Lorena	1	53	52	39	51	56
Crist, Otho	1	52	43	49	55	58
Maggio, Favian	4	73	68	77	40	30
Trantow, Korey	4	76	79	60	24	37
Anderson, Merritt	3	43	37	31	62	70
Howell, Ciara	2	45	39	36	66	63
Barton, Maeve	2	54	56	49	52	52
Swift, Paolo	1	58	51	52	55	55
Kuhic, Susan	2	62	57	48	52	45
McDermott, Magnolia	3	76	80	72	27	26
Torphy, Hank	2	73	78	68	29	24

Use of data for individual students: review areas of need

REPORTS » TRANTOW, KOREY

ITEM SCORE LEGEND

- 0 = Never** (Observed 0 times)
- 1 = Rarely** (Observed 1-2 times or to a minimum extent)
- 2 = Sometimes** (Observed 3-4 times or to a moderate extent)
- 3 = Often** (Observed 5-6 times or to a significant extent)
- 4 = Very Often** (Observed 7 or more times or to an extreme extent)

UA T-SCORE LEGEND

Conduct, Negative Affect, Cognitive/Attention	Social, Academic Functioning
Low Risk	Strength
Some Risk	Typical
High Risk	Concern

SUMMER 2016 UA RESULTS, RATER: MARY SIMMONS

BEHAVIORAL CONCERN SCALES			
CONDUCT			
T-Score	Scale Descriptor		
76	High Risk		
Item	Score	Descriptor	
2	appeared angry	2	Concern
9	engaged in risk-taking behavior	0	No Concern
13	fought with others (verbally, physically, or both)	1	Mild Concern
17	lied or cheated	1	Mild Concern
21	lost his/her temper when upset	3	Concern

Use of data review Student progress over time

SOCIAL

Joey Jones

Indicators	Overall	<u>Summer 2016</u> 07/01/16	<u>Spring 2016</u> 03/01/16	<u>Winter 2015</u> 12/01/15
Raw Score		16	24	22
T-Score		40	66	57
90% CI		34-46	60-72	51-63
Percentile		16	95	76
Level of Functioning		concern	strength	typical
Significant Change Reliable Change Index (RCI)	Much Worse	Much Worse	Improved	



COMPREHENSIVE BEHAVIORAL HEALTH MODEL (CBHM)

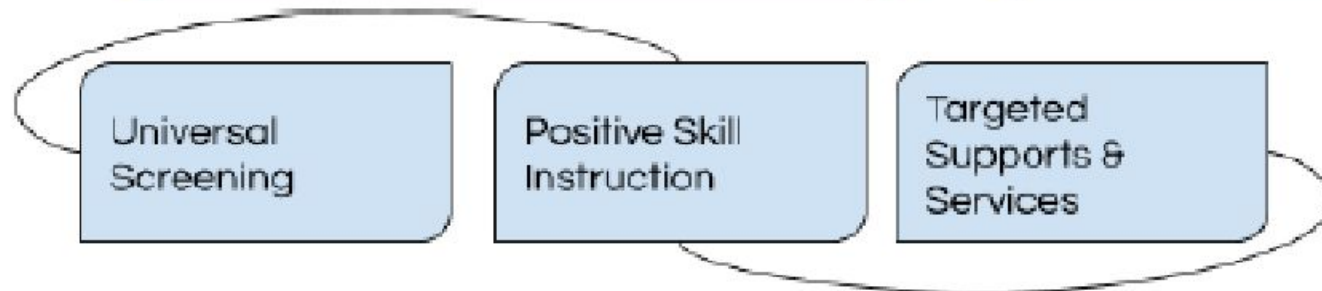
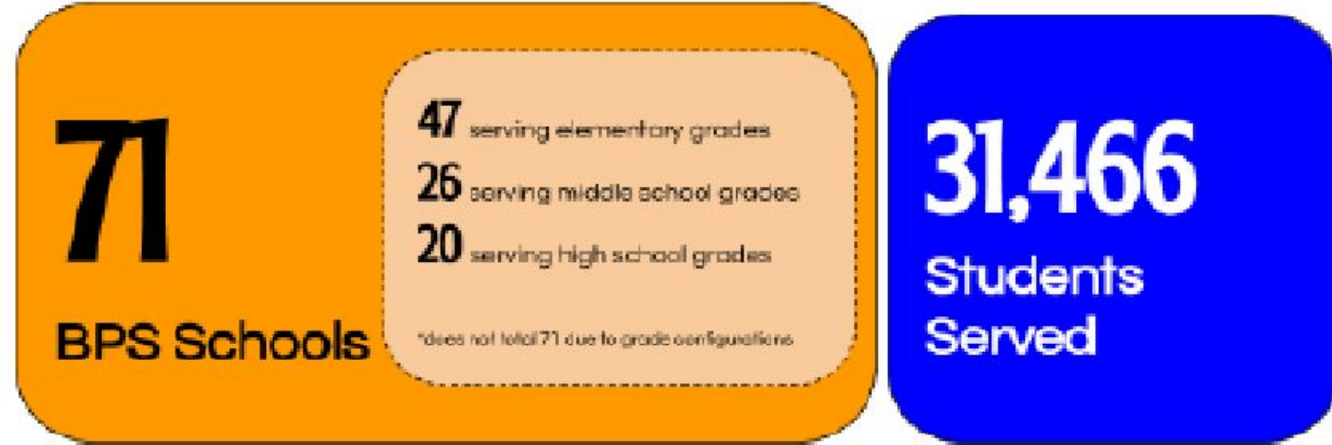
Outcomes Illustration

Andria Amador, CAGS, NCSP
Senior Director of Behavioral Health
Boston Public Schools





COMPREHENSIVE BEHAVIORAL HEALTH MODEL
ANNUAL REPORT | SCHOOL YEAR 2018-19



For social, emotional & behavioral health



31,466
Total Students Served
In CBHM Schools

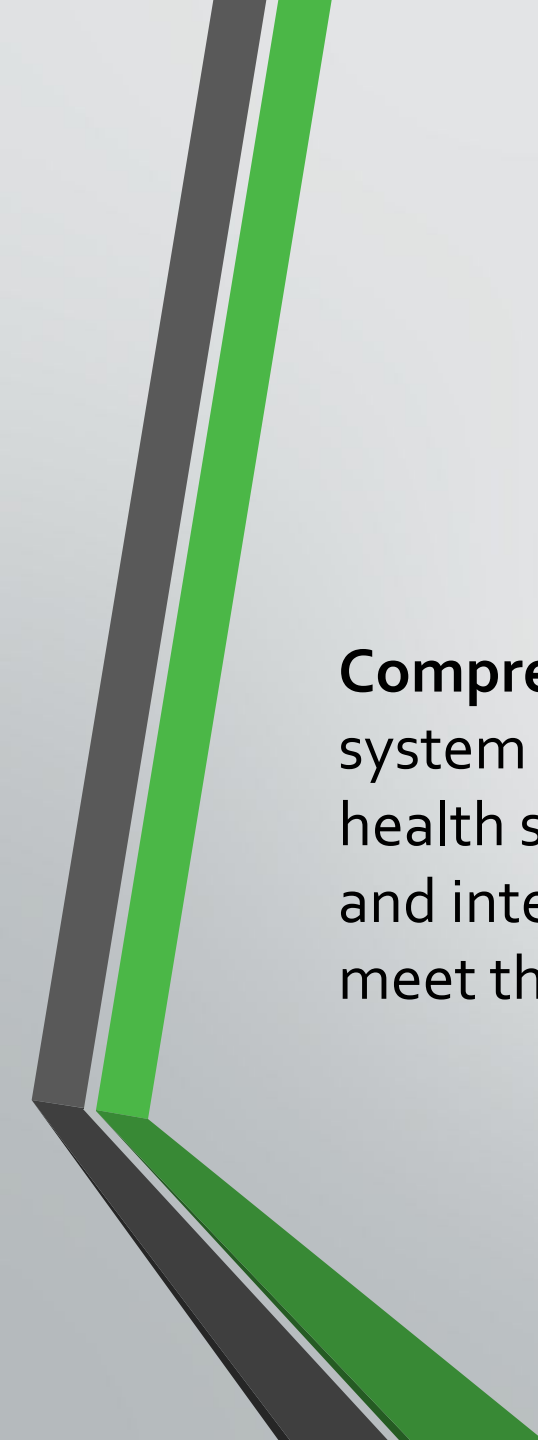
45%
First Language other than
English

29%
English Language Learners

21%
Students Receiving Special
Education Services

74%
High Needs¹

55%
Economically
Disadvantaged

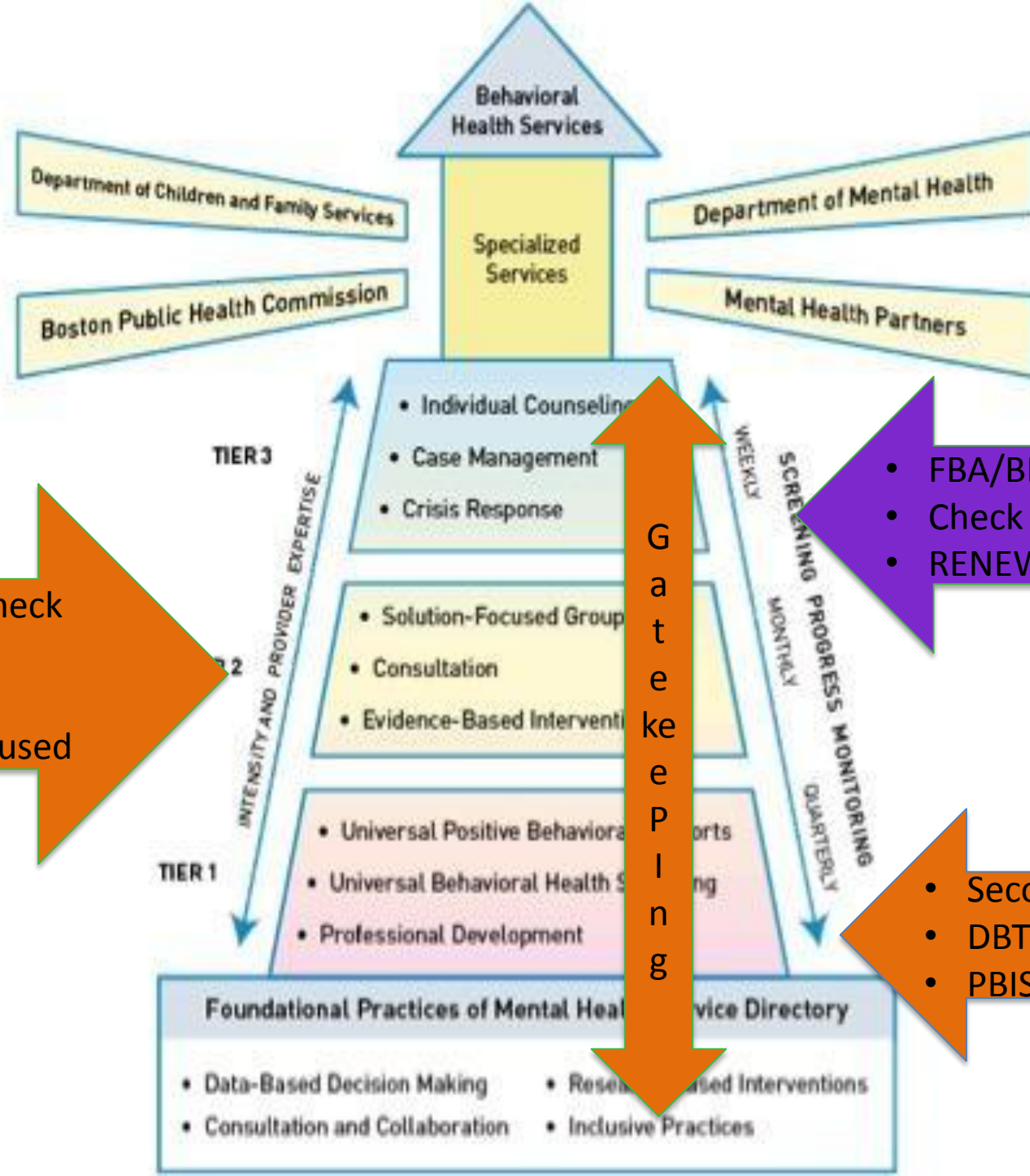


CBHM Overview: A MTSS-B model

Comprehensive Behavioral Health Model (CBHM) is a multi-tiered system of support designed to provide a continuum of behavioral health services. From prevention and promotion, to at-risk services and intensive services CBHM helps to build the capacity of staff to meet the needs of students.

CBHM at Tier 1

	WHAT	WHY	HOW
INSTRUCTION	• School Wide Positive Behavioral Interventions and Supports (SWPBS)	Students need to know behavioral expectations throughout the school building in order to be successful in the school environment	Organize the school environment to prevent problem behaviors and reinforce positive behaviors
	• Social Emotional Learning (SEL) Curricula	Students need social and emotional skills to successfully navigate interactions with peers and adults	Instruction in fundamental social skills, such as empathy, relationship building, and conflict management
ASSESSMENT	• Universal Screening	Schools need universal data from all students to understand the strengths of instructional programming, as well as areas of need.	Collect objective information that can be used to guide instruction at multiple levels (e.g. school, grade, class, and individual student)
DATA BASED DECISION MAKING	• Problem Solving Teams & Data Based Decision Making	School teams need to understand how to use universal assessment data to make systemic decisions about instruction	School teams are effectively organized to promote efficient data-based decision making.



- Check-in/ Check out
- Coping Cat
- Solution focused

- FBA/BIP
- Check and Connect
- RENEW

- Second step
- DBT in Schools
- PBIS



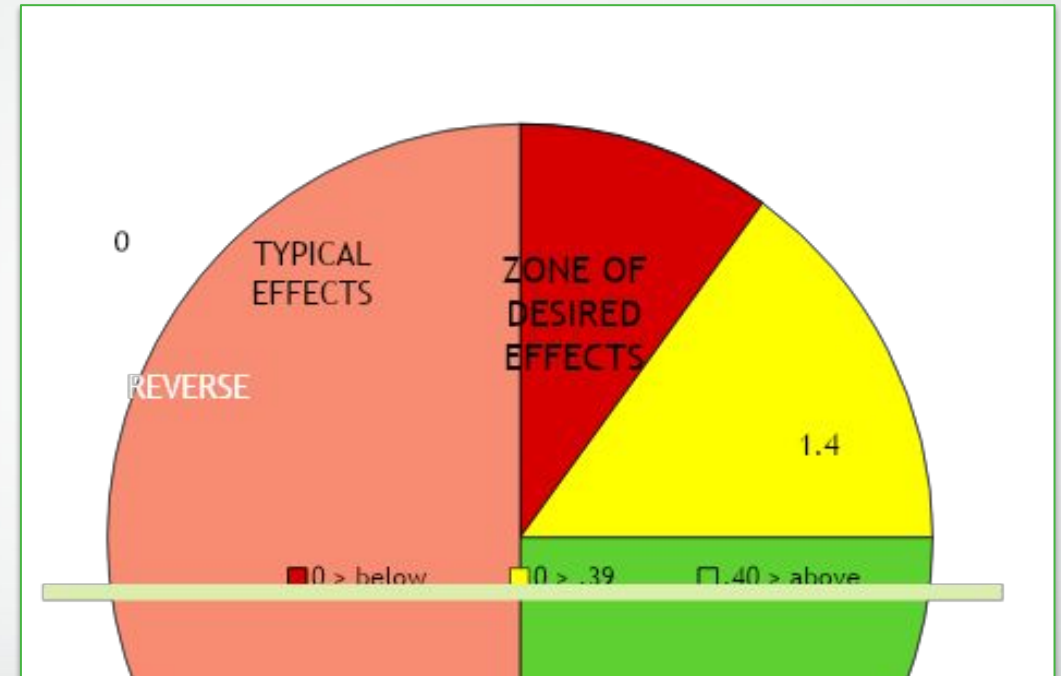
IMPROVED OUTCOMES FOR AT-RISK STUDENTS

- Years of BIMAS data reveal that students who demonstrate risk on any of the scales measured experience significant improvements.
- While improvement is statistically significant for all scales, students with **internalizing concerns** experience the most significant improvement.

Concept of Effect Size

“The key to many of the influences above the $d = 0.40$ hinge-point is that they are deliberate interventions aimed at enhancing teaching and learning.”

– John Hattie [Visible Learning for Teachers](#), p. 17



- ✦ Almost everything we do improves learning (above $d = 0.40$)
- ✦ The average effect size of all Hattie's studies is 0.4.
- ✦ Working smarter based on the effect size that makes a profound difference
- ✦ Know the most positive impacts on student learning based on research
- ✦ Evidence from the students' growth should provide the impact/proof of the

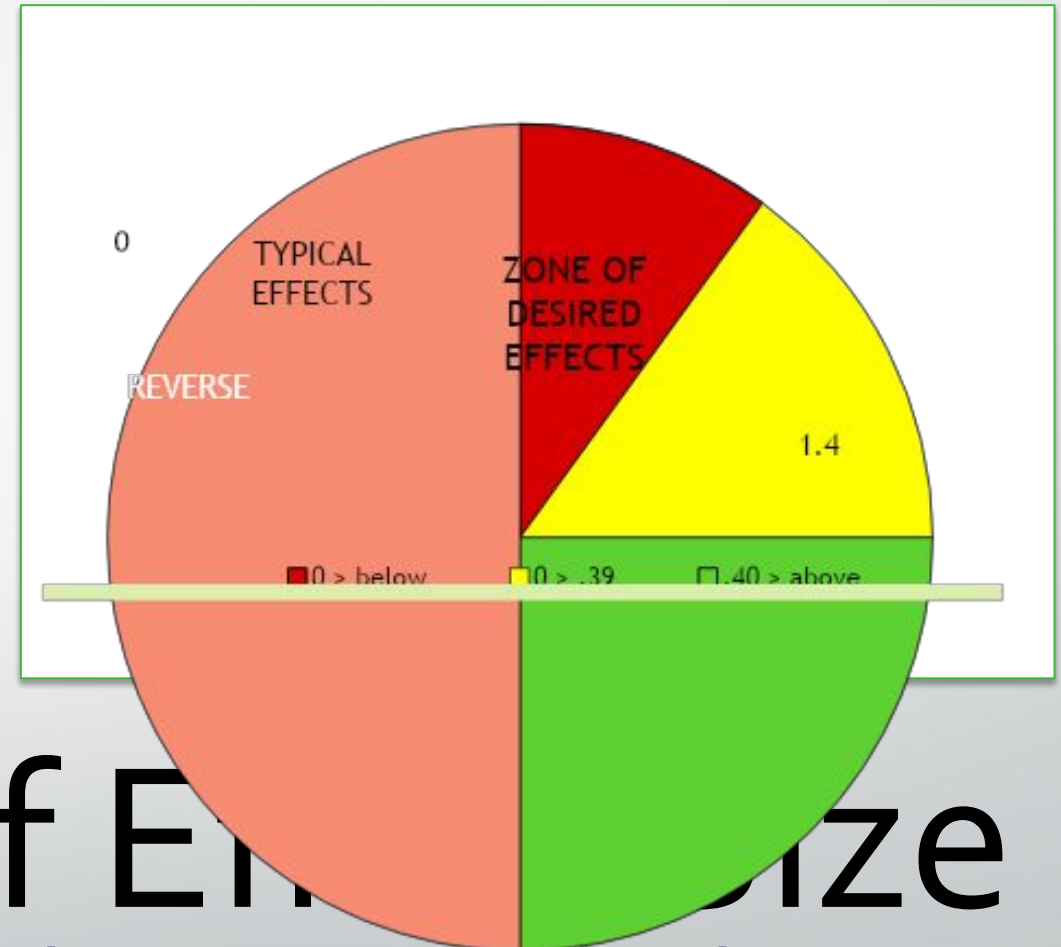
1.0 = 3 year gain

>0.40 = student learning accelerates

0.40 = students are on track to learn a year's worth of academic material over the course of one school year

0.00 = no effect on student learning

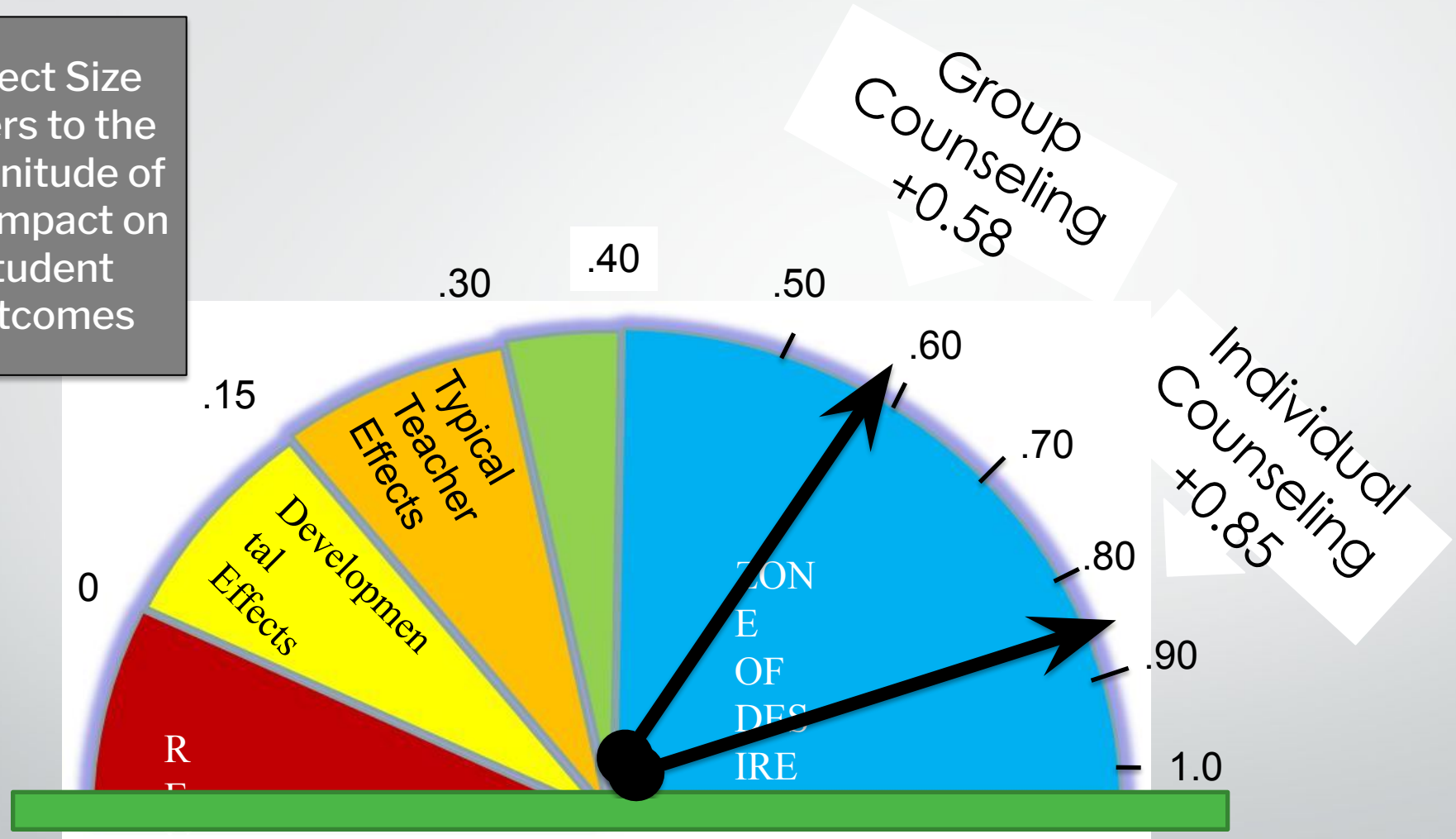
<0.00 = student learning is negatively effected



Use of Effect Size
*to discover the most positive impacts
on student achievement*

Effect Sizes: Behavioral Health

Effect Size refers to the magnitude of the impact on student outcomes

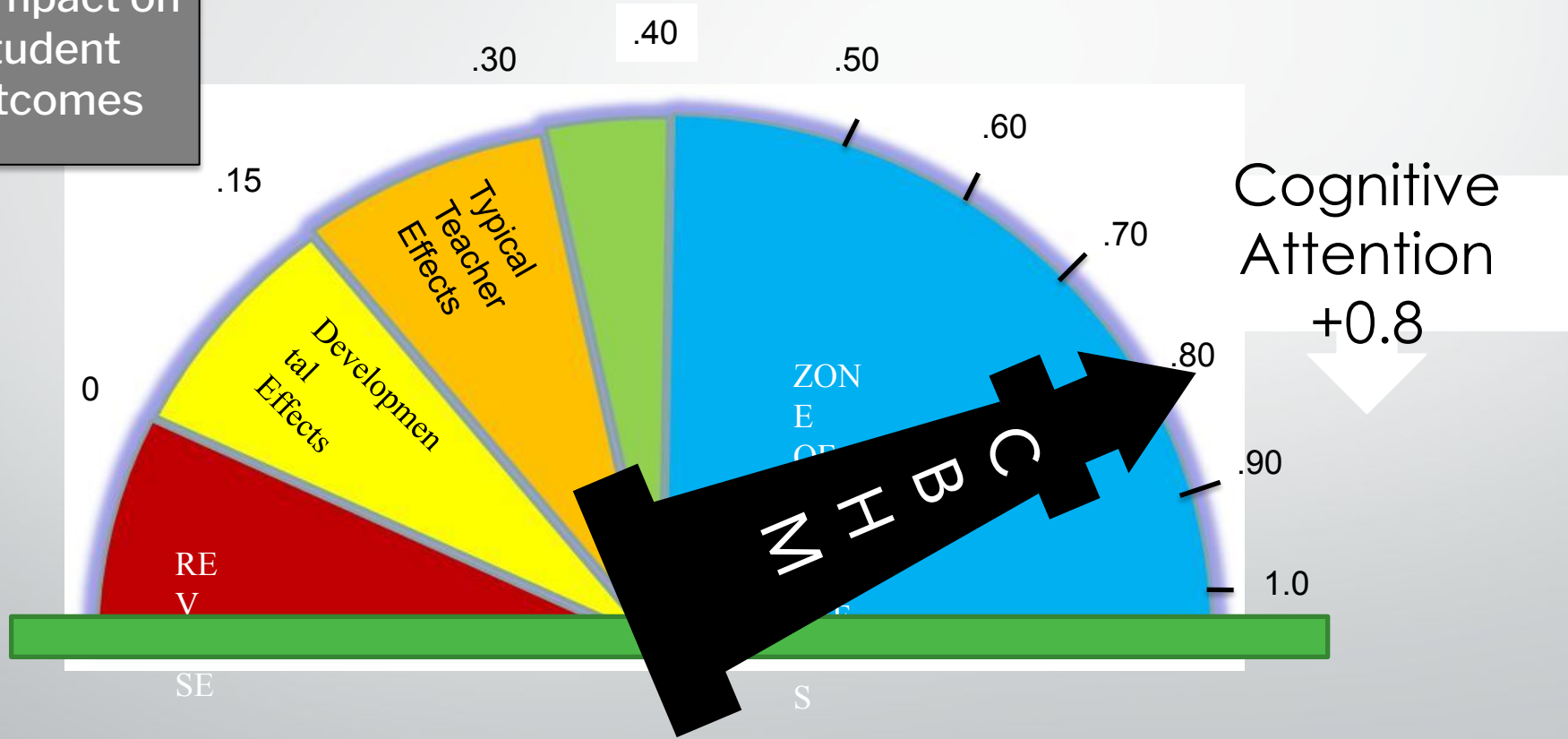


Reynolds, Wilson, & Hooper (2012)

EFFECTS

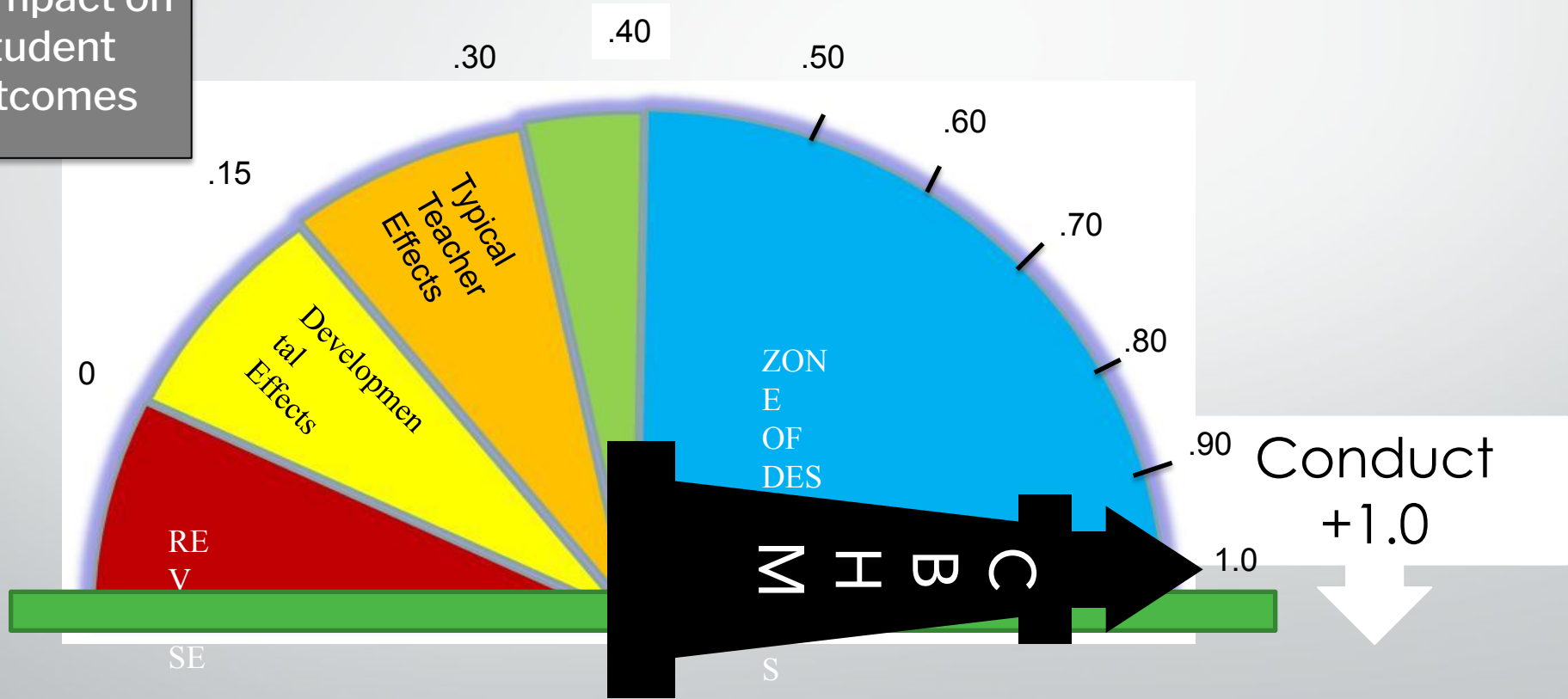
Effect Sizes: CBHM

Effect Size refers to the magnitude of the impact on student outcomes



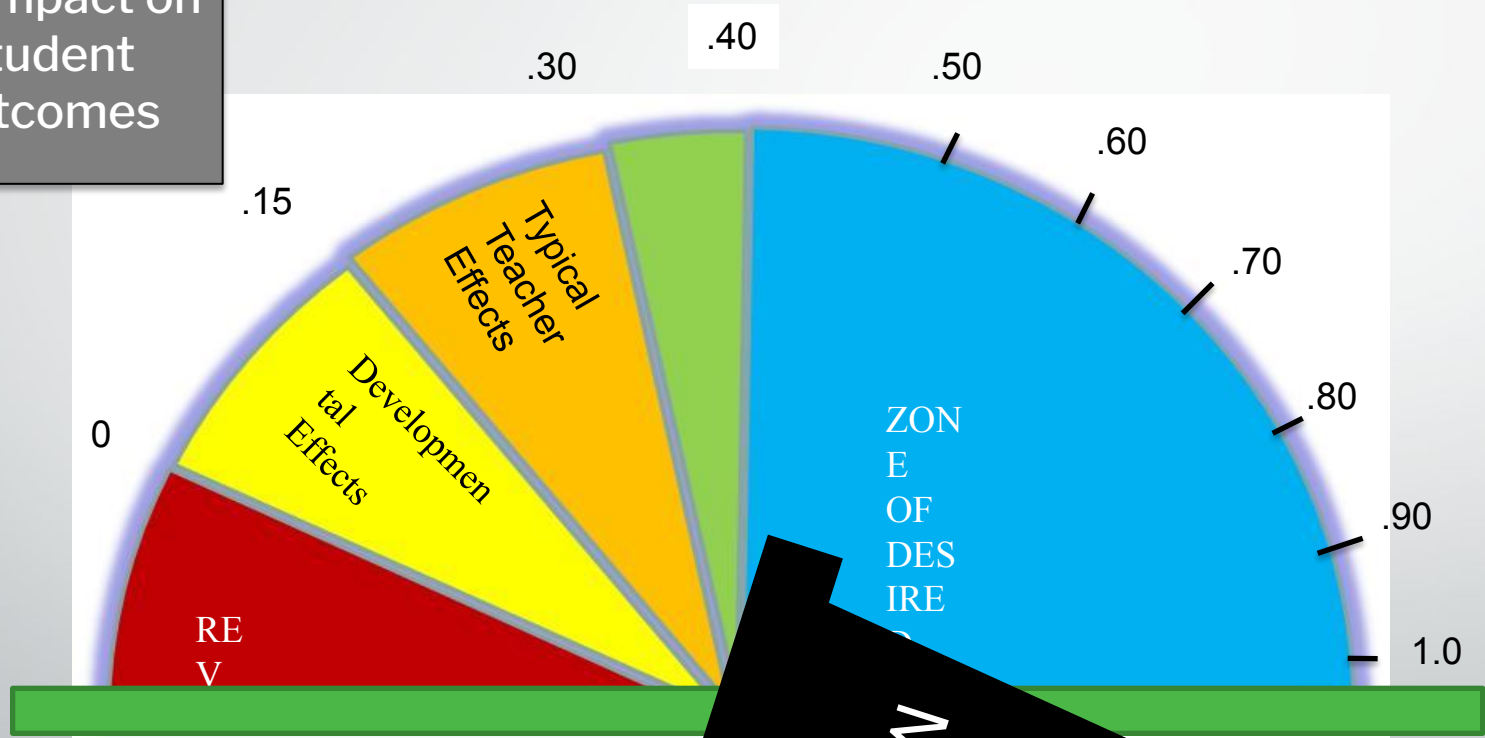
Effect Sizes: CBHM

Effect Size refers to the magnitude of the impact on student outcomes



Effect Sizes: CBHM

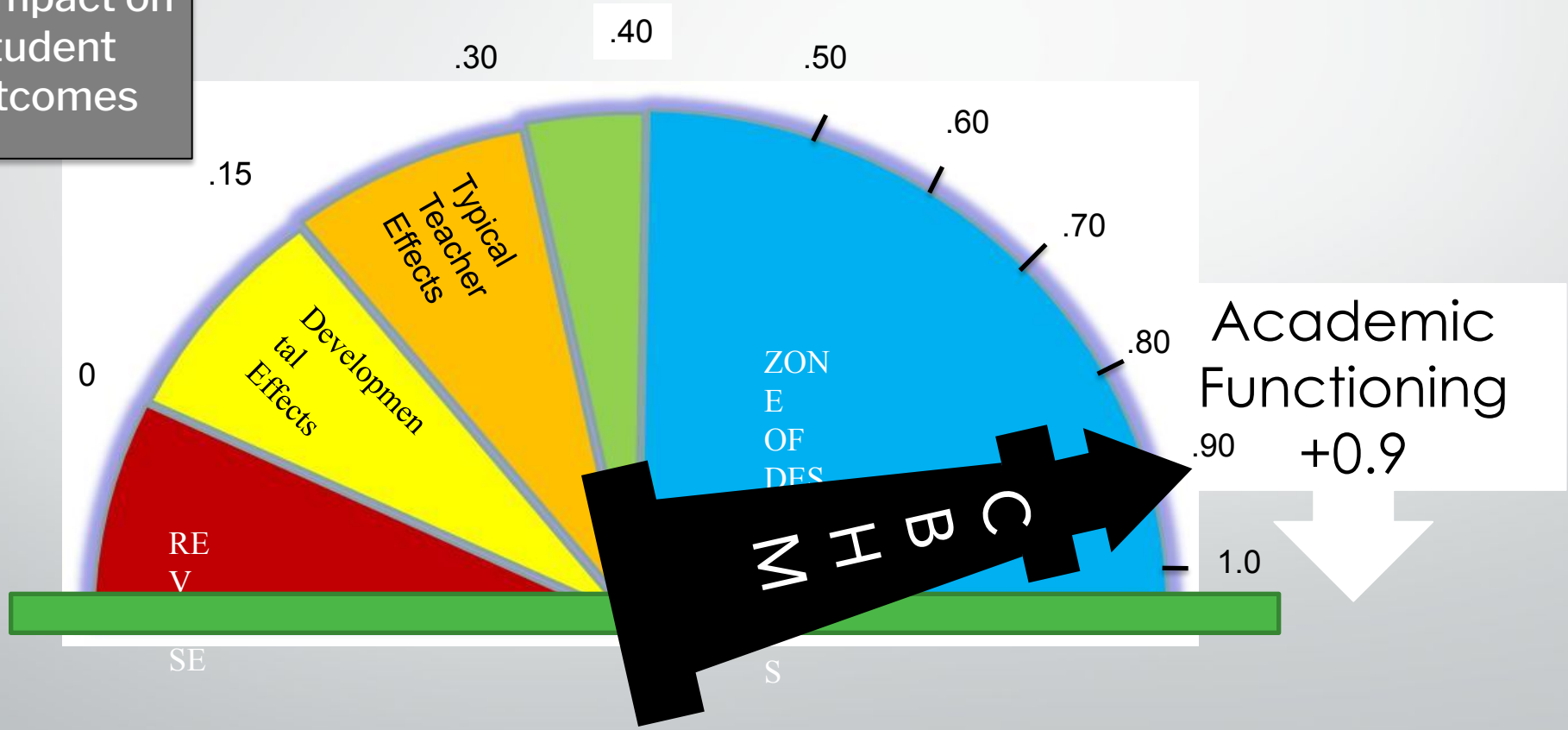
Effect Size refers to the magnitude of the impact on student outcomes



Negative Affect +1.2

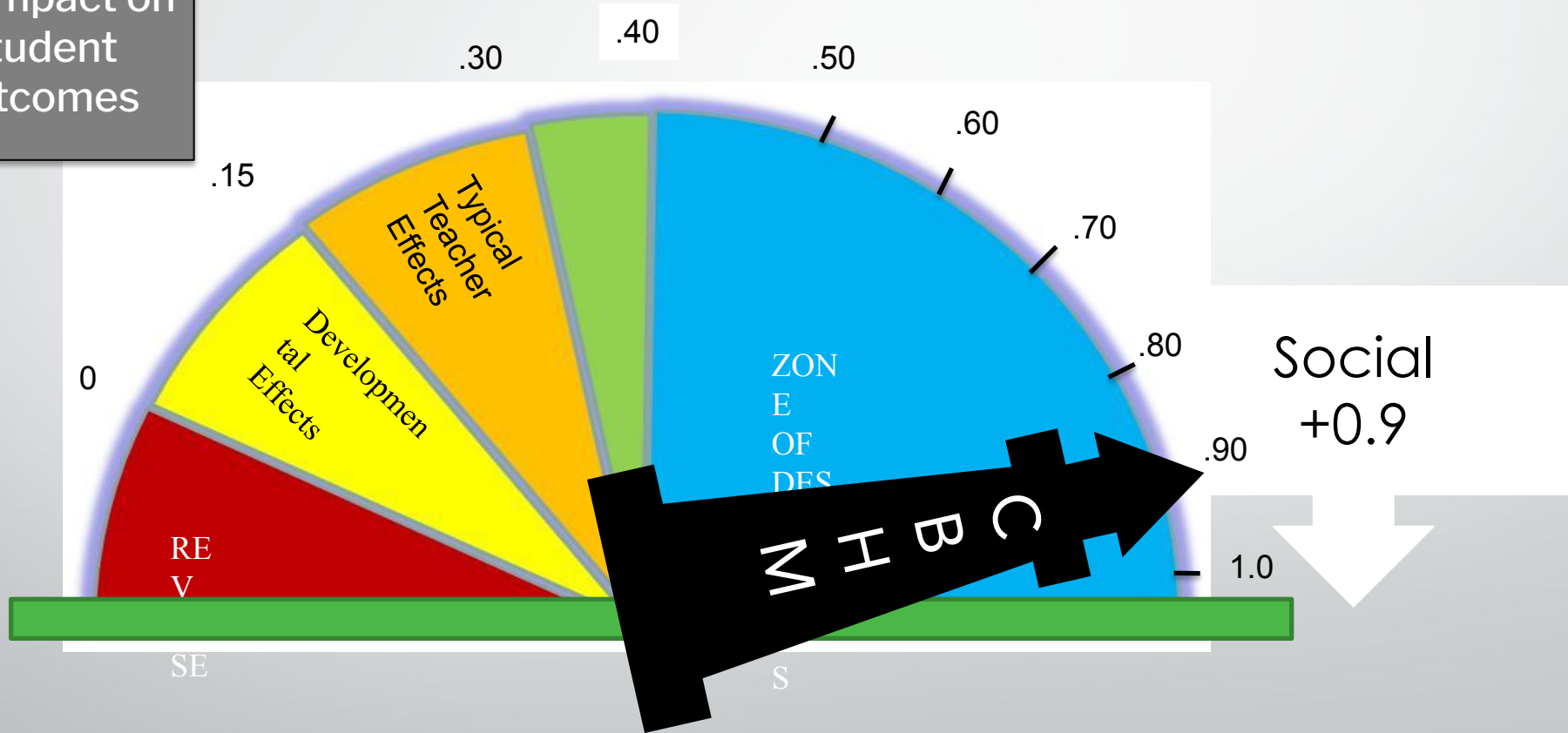
Effect Sizes: CBHM

Effect Size refers to the magnitude of the impact on student outcomes



Effect Sizes: CBHM

Effect Size refers to the magnitude of the impact on student outcomes



Accomplishments (over the past 3 years)

Improvements in Student Outcomes in CBHM Schools:

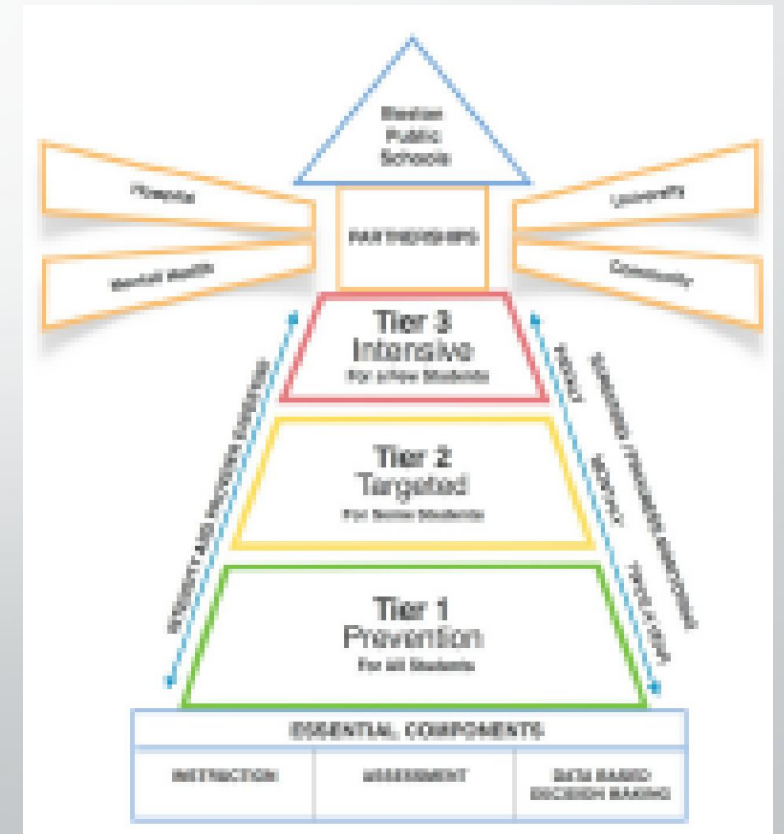
- Improvements in Student Outcomes in CBHM schools, including
 - Increases in positive behaviors
 - Increases in academic skills
 - Decreases in problem behaviors

National Recognition for Innovative Work:

- National Recognition for Innovative Work:
- CBHM was highlighted in new book Preventative Mental Health at Schools by Dr. Gayle Macklem
- State of Colorado Education Initiative was based on CBHM

Media Coverage

- Time Magazine
- Boston Neighborhood News
- Urban Update
- Phi Delta Kappan
- Highlighted in *Preventative Mental Health in Schools* by Galye Macklem



Yeah but that's Boston

- Do other districts get these results?
- District near me, 2nd year results



Elementary School: Total Results

Scale *	Pre Mean (SD)	Post Mean (SD)	N	Mean Improvement	Effect Size (d)
Conduct	50.16 (7.0)	51.33 (9.38)	517	1.17	.15
Negative Affect	49.45 (9.11)	50.77 (10.30)	517	1.32	.14
Cognitive/Attention	51.99 (12.9)	52.44 (13.45)	517	0.45	.03
Scale *	Pre Mean (SD)	Post Mean (SD)	N	Mean Improvement	Effect Size (d)
Social	50.11 (11.77)	50.80 (12.21)	517	0.69	0.06
Academic Functioning	50.29 (11.25)	49.92 (10.93)	517	0.37	0.03

Little effect on school wide
data: Students now analyzed
by risk level- Some Risk, High
Risk,

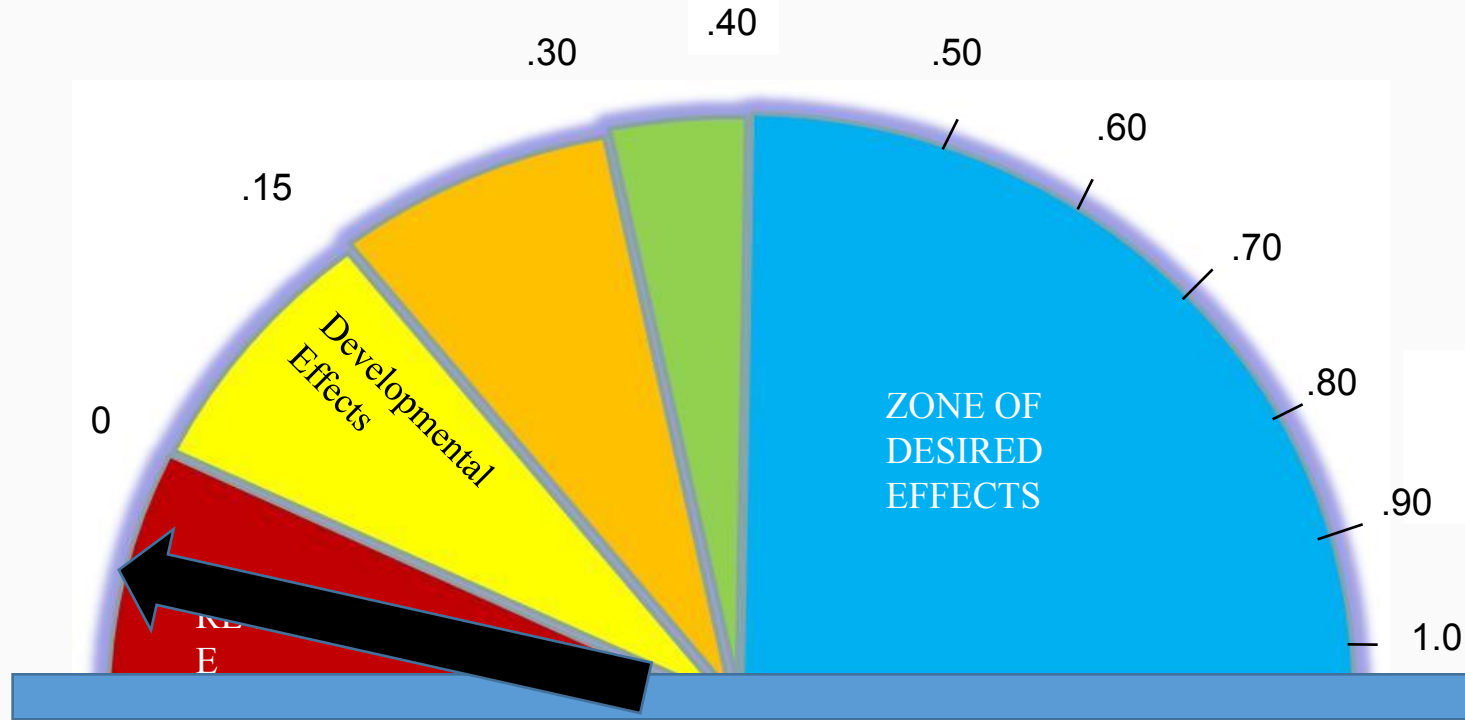
Change for students who were assessed as “Some Risk”

Scale *	Pre Mean (SD)	Post Mean (SD)	N	Mean Improvement	Effect Size (d)
Conduct	63.06 (2.39)	64.14 (10.18)	47	1.08	-0.45
Negative Affect	62.81 (2.45)	60.54 (10.20)	53	-2.27	0.92
Cognitive/Attention	64.54 (2.74)	62.56 (8.50)	85	1.98	0.72

Adaptive Scales	Pre Mean	Post Mean	N	Mean Improvement	Effect Size (d)
Social	36.8	40.8	73	4.0	.7 Med high
Academic Functioning	37.1	39.54	42	3.4	.42 Medium

Effect Sizes for Some Risk Students

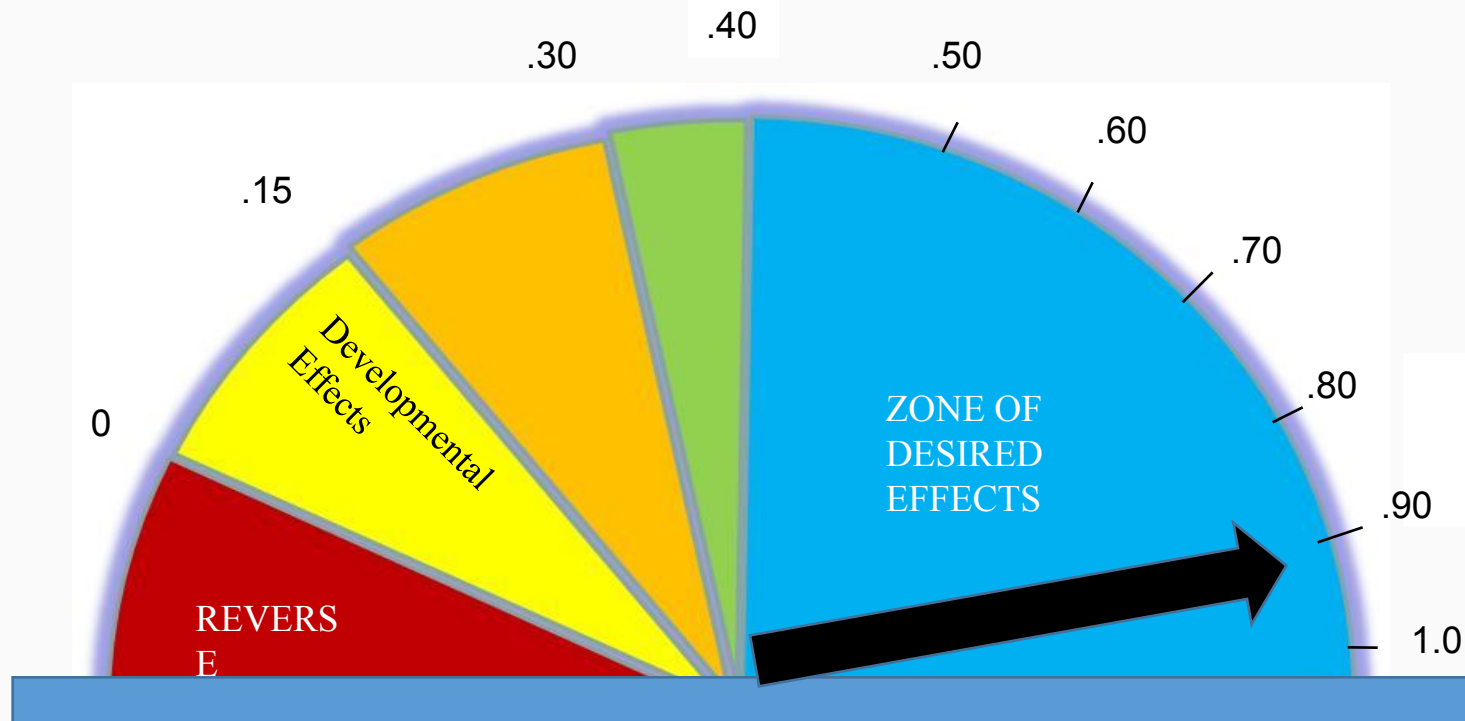
Effect Size refers to the magnitude of the impact on student outcomes



Conduct
-.45
(Reverse)

Effect Sizes for Some Risk Students

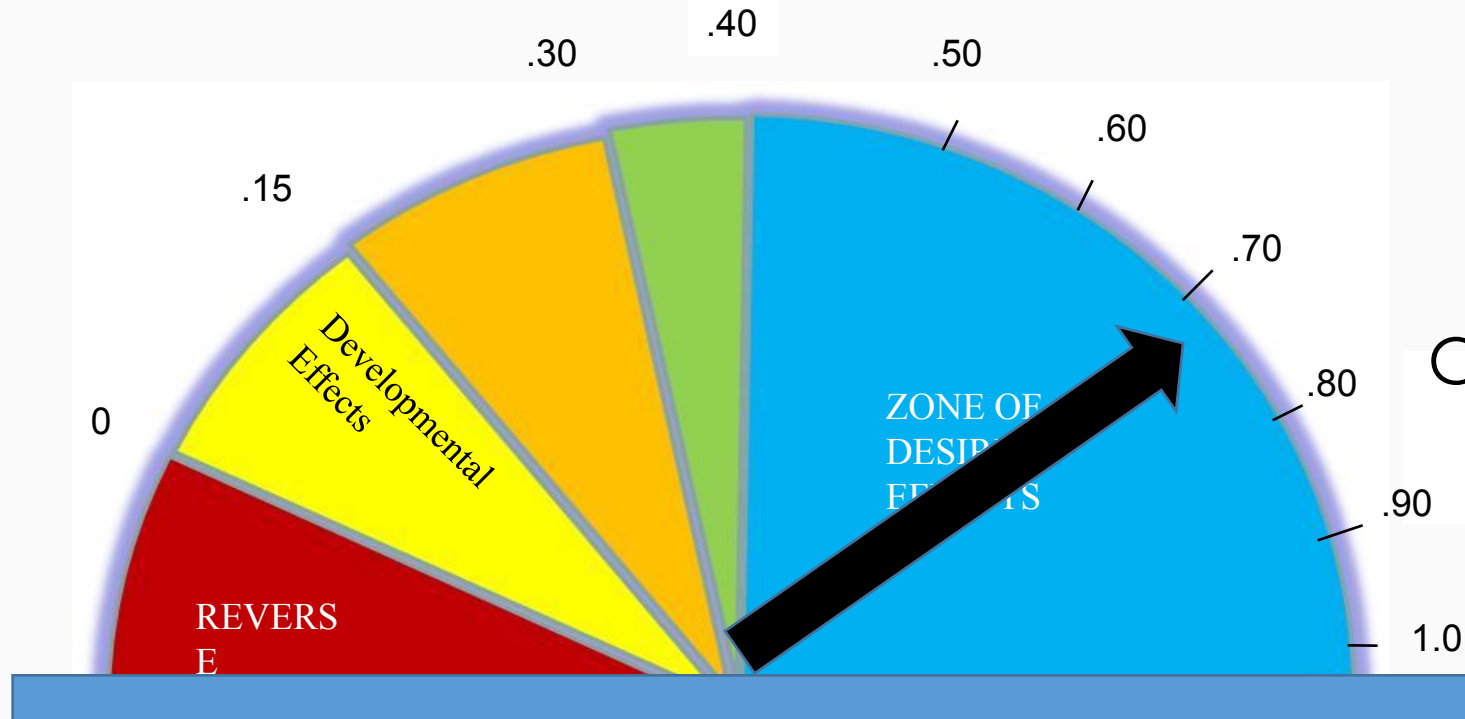
Effect Size refers to the magnitude of the impact on student outcomes



Negative Affect
+0.92
(Large)

Effect Sizes for Some Risk Students

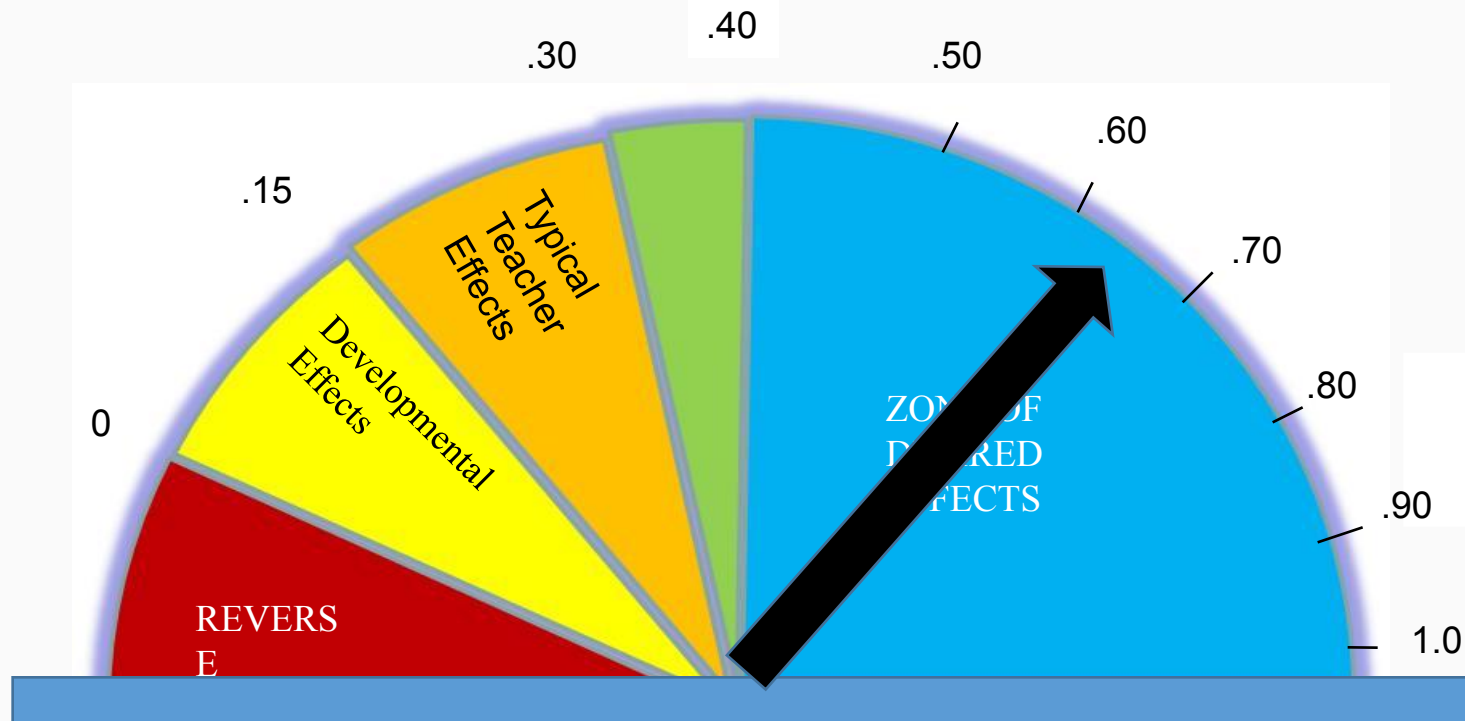
Effect Size refers to the magnitude of the impact on student outcomes



Cognitive/Attention
+0.72
(Large)

Effect Sizes for Some Risk Students

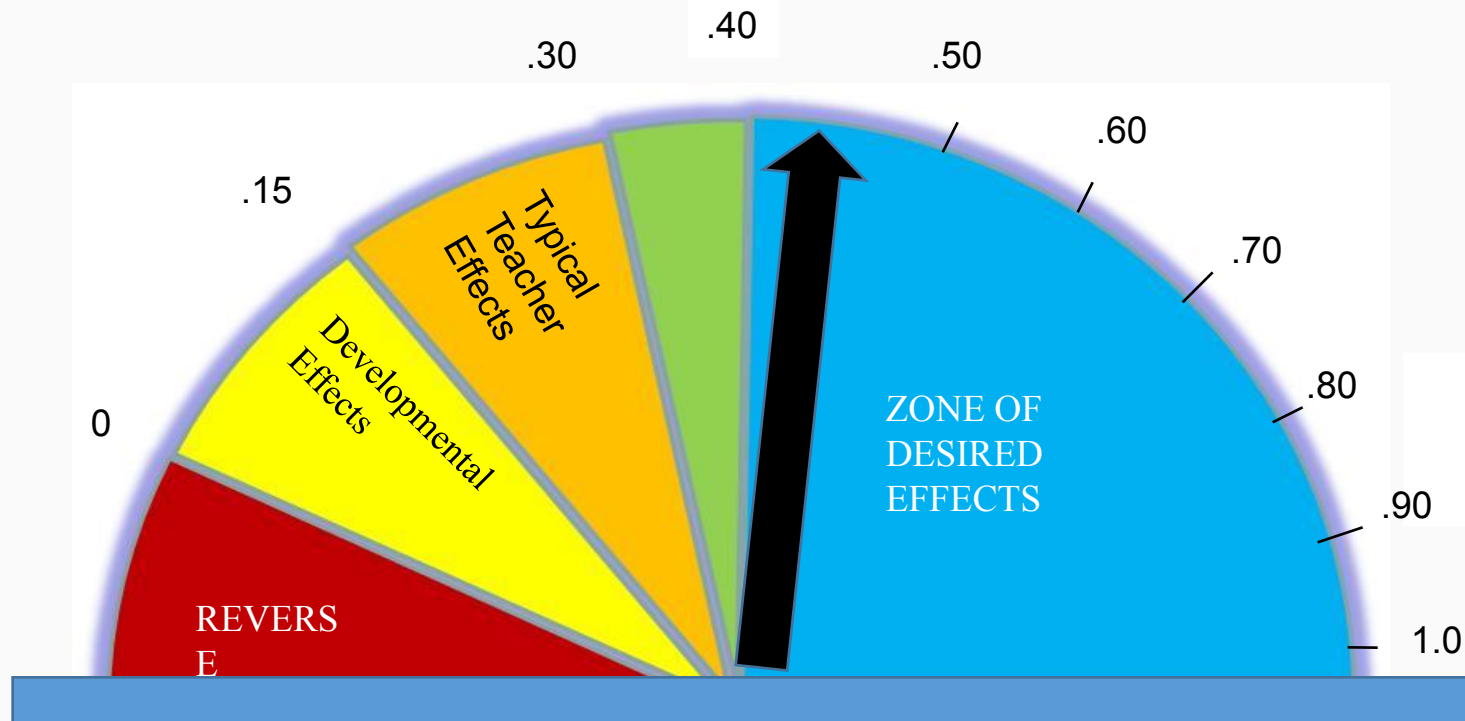
Effect Size refers to the magnitude of the impact on student outcomes



Social Scale
.7
(Med high)

Effect Sizes for Some Risk Students

Effect Size refers to the magnitude of the impact on student outcomes



Academic
Functioning Scale
.42
(Med)

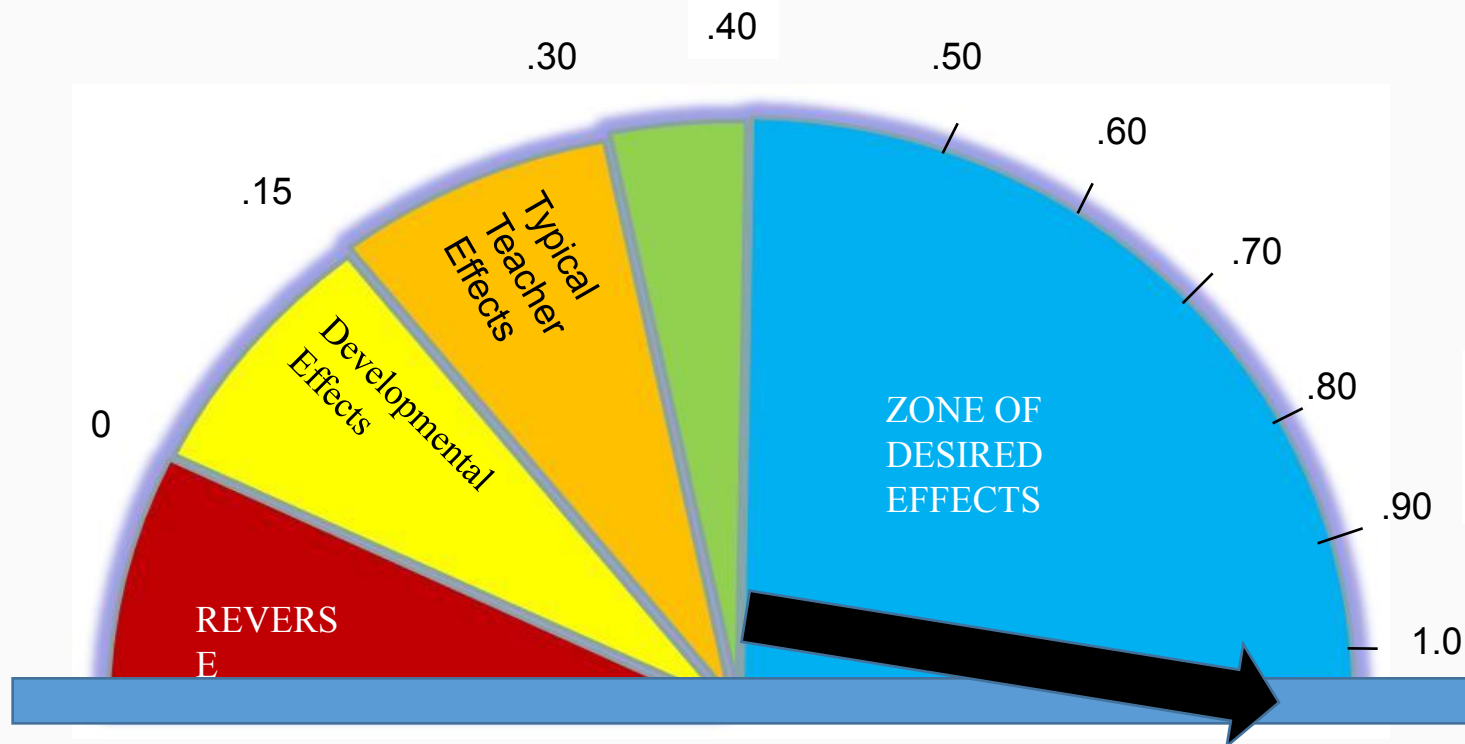
Change for students who were assessed as “High Risk” for behavioral scales or “Concern” for adaptive scales.

Overall

Scale *	Pre Mean (SD)	Post Mean (SD)	N	Mean Improvement	Effect Size (d)
Conduct	75.35 (3.37)	71.125 (6.95)	16	4.23	1.16 Very Large
Negative Affect	74.21 (3.32)	68.42 (9.23)	19	5.79	1.67 Very Large
Cognitive/Attention	73.98 (3.10)	73.43 (6.22)	58	0.55	.18 Medium Small
Social	24.27 (3.13)	28.77 (7.90)	22	4.5	.82 Large
Academic Functioning	24.53 (3.21)	29 (7.34)	30	4.47	.85 Large

Effect Sizes for High Risk Students

Effect Size refers to the magnitude of the impact on student outcomes

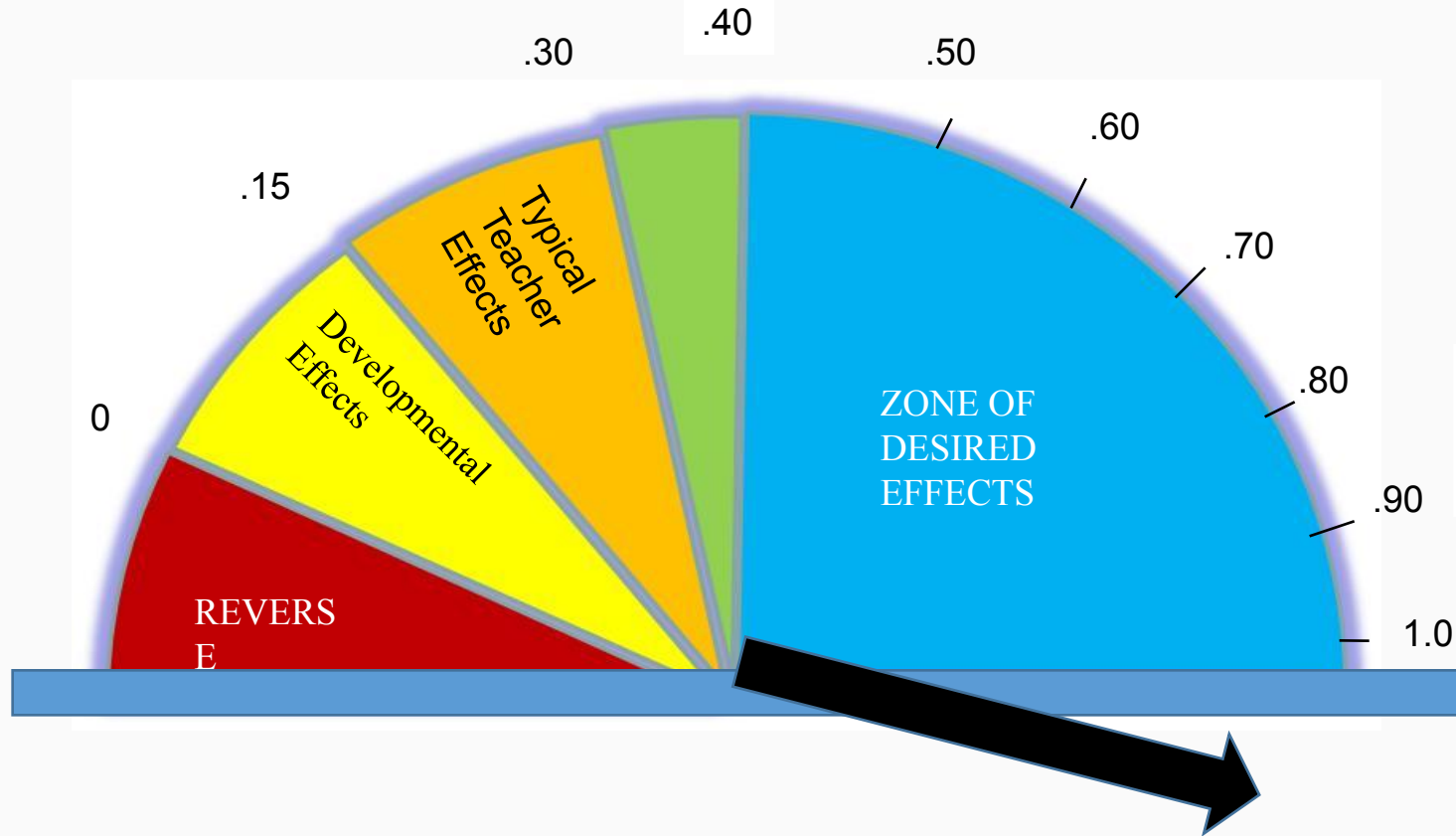


Conduct
+1.16
(Very Large)

Off the Charts!

Effect Sizes for High Risk Students

Effect Size refers to the magnitude of the impact on student outcomes

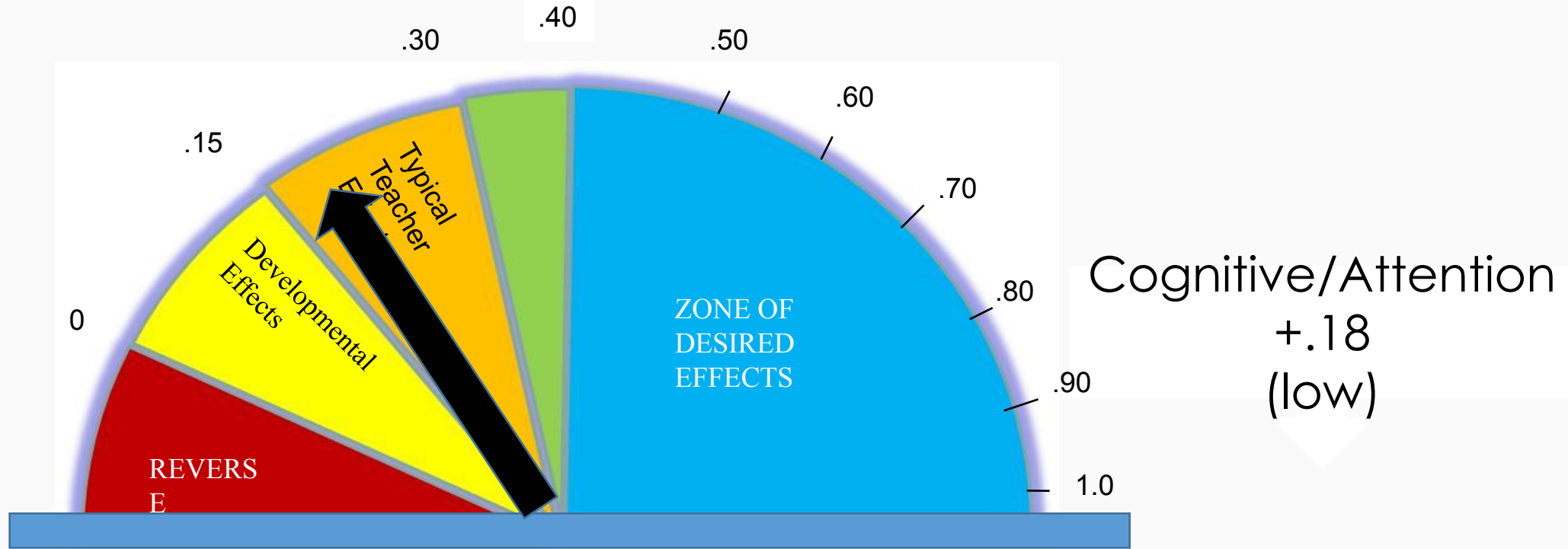


Negative Affect
+1.67
(Very Large)

Off the Charts!

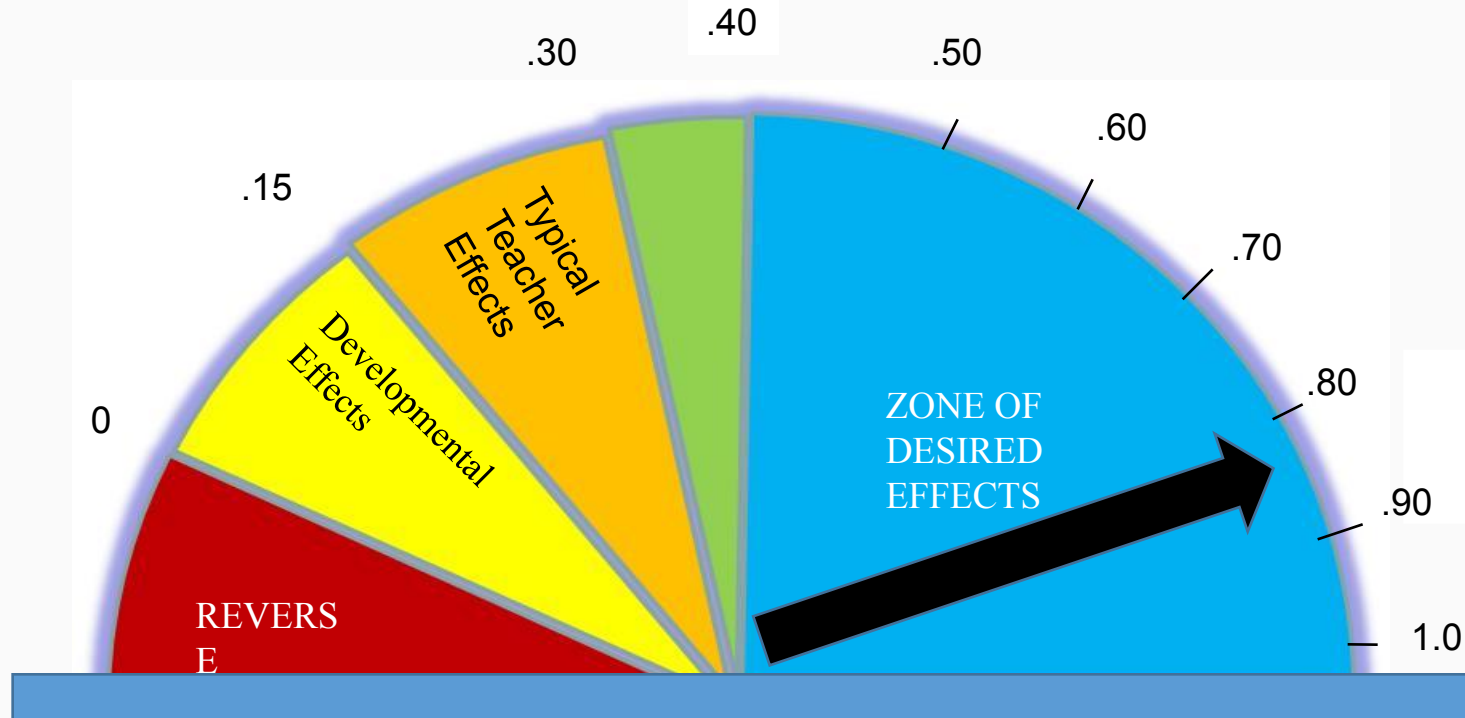
Effect Sizes for High Risk Students

Effect Size refers to the magnitude of the impact on student outcomes



Effect Sizes for High Risk Students

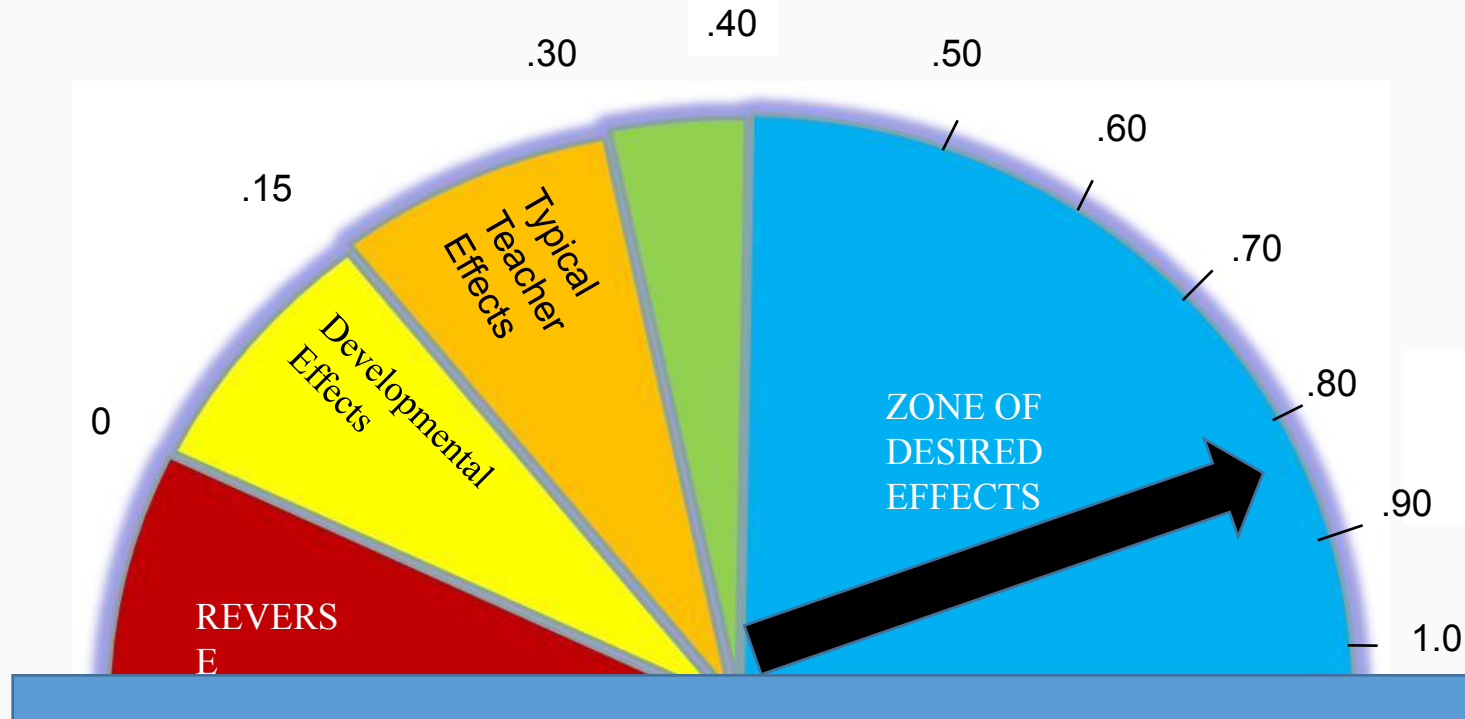
Effect Size refers to the magnitude of the impact on student outcomes



Social
+0.82
(Large)

Effect Sizes for High Risk Students

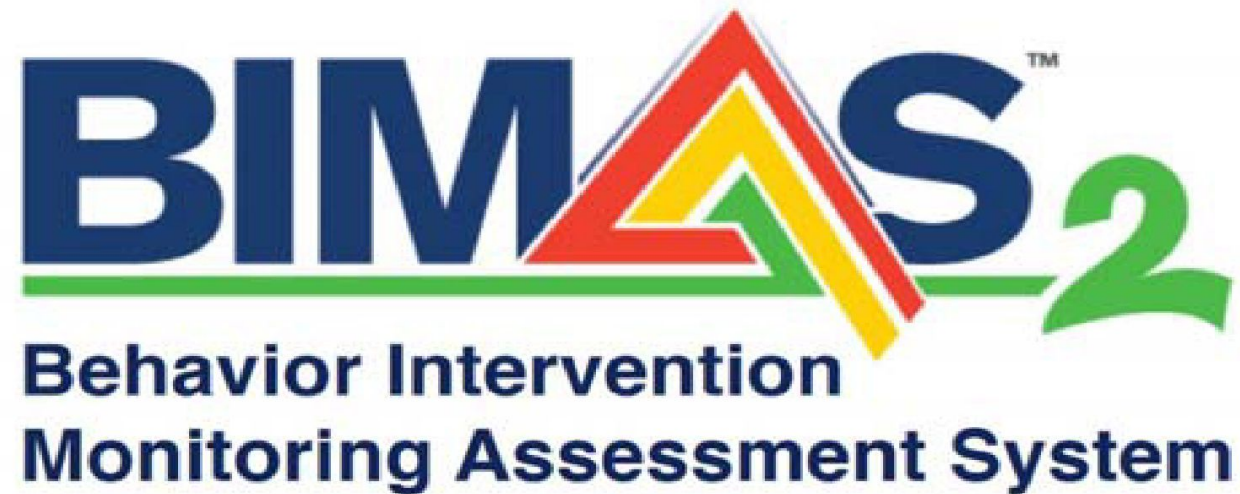
Effect Size refers to the magnitude of the impact on student outcomes



Academic Functioning
+0.85
(Large)

Let's take a tour: the BIMAS-2

- <https://trial.edumetrisis.com/>



Contact Information

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