



Effective Social-Emotional and Mental Health supports in the schools: What Superintendents should know

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Why are we doing this?

We have lots of Children

Children- 2010, there were **74.2** million children 17 or under in the US (26 % of the population).

- **54 %** were white, non-Hispanic;
- **23 %** Hispanic,
- **14 %** African-American,
- **4 %** Asian-Pacific, and
- **5%** all others



Children's Mental Health Needs, Disparities and School-Based Services: A Fact Sheet
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Updated February 28, 2012



Prevalence & Progression:

Behavioral health needs

And lots of Children with behavioral health **Needs**

- 21 % experienced symptoms of a DSM disorder during the course of a year
- 11 % experienced significant impairment
- 5 % experienced extreme functional impairment.
- **75 to 90% of students in need of services do not receive them.**
- **Progression of disorders is stable and very predictable**
 - Externalizing behaviors-tantrums, ODD, CD
 - Internalizing difficulties- anxiety, depression, suicide

Currently high school students report...

In the last 1-12 months

Externalizing related outcomes

- 12-18% carried a weapon in school
- 6% carried a gun in school
- 7% were threatened/injured with a weapon in school
- 14-21% were bullied in school
- 7-10% Did not go to school: as they felt unsafe

Internalizing related outcomes

- 30% felt report persistent feelings hopelessness
- 17% seriously considered attempting suicide
- 14% developed a suicide plan
- 7% had one or more suicide attempts

CDC National Youth Risk Survey, 2017

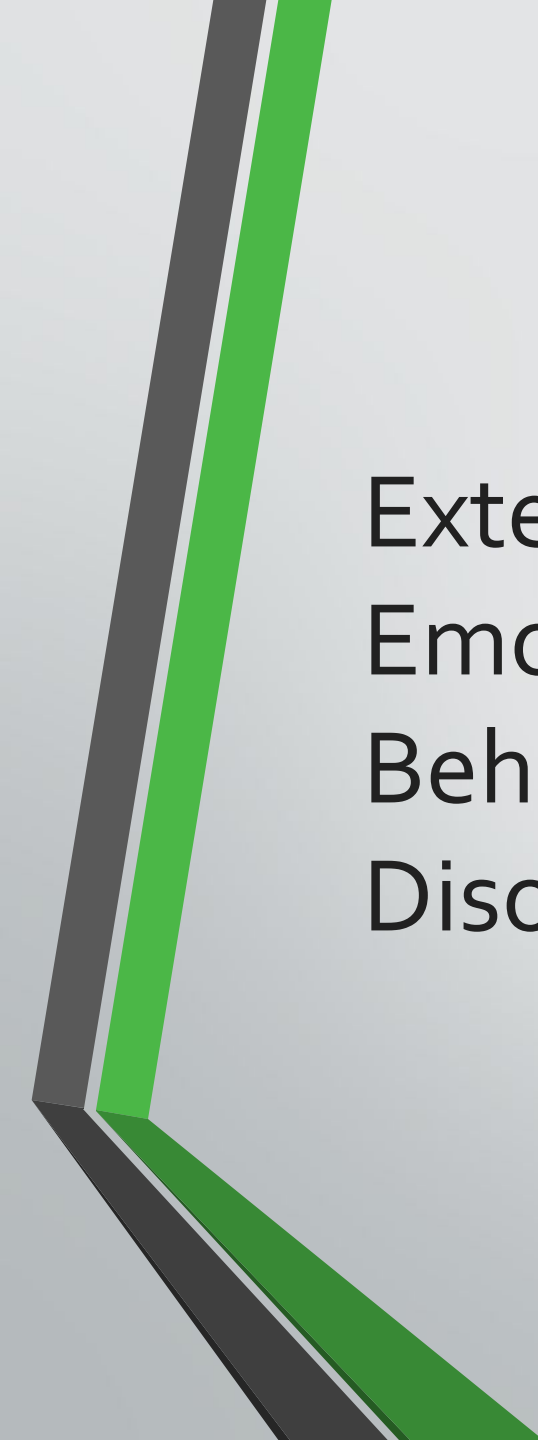
<https://www.cdc.gov/healthyyouth/data/yrbs/overview.htm>

Suicide

- Nearly 30,000 Americans commit suicide every year.
- In the U.S., suicide rates are highest during the spring.
- 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.

5/26/2021





Externalizing: Emotional and Behavioral Disorders

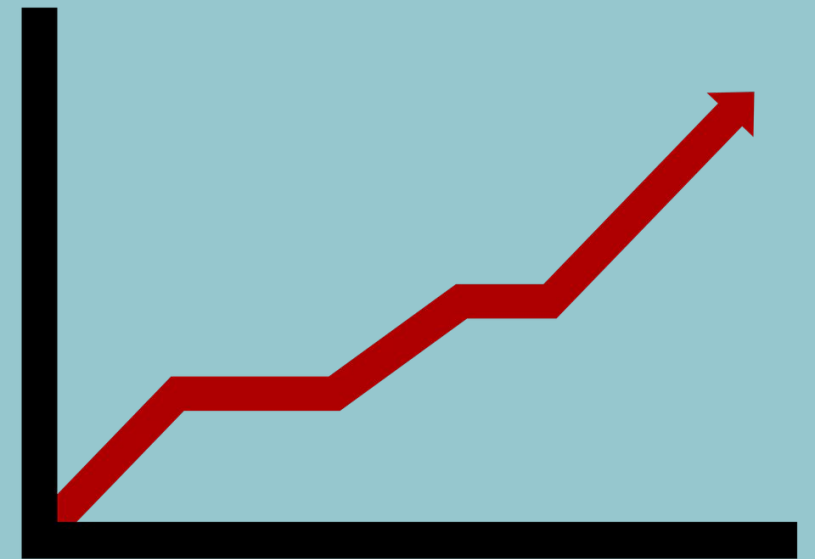
- About 20% of children present themselves with diagnosable disorders (*i.e., U.S. Department of Health and Human Services, 1999*)
- 3-6% of children with serious and chronic disorders (*Kauffman, 1997*)
- Progression of disorders is very predictable
 - Externalizing behaviors (severe tantrums, disobedience)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

Negative Long Term Outcomes

- EBD students have the poorest outcomes of the “high incident” disability groups.
 - Drop-out rate over 50%
 - After school, 40% are unemployed with no additional training/education.
 - 50% are arrested within 5 years of leaving school
 - Of EBD drop-outs this figure exceeds 70%!!
- (e.g., see Quinn & McDougal, 1998)*

Why are we doing screening and Tired Support?

- **We have lots of Children (2010- 74.2 million children, 2-17)**
- **Lots have Mental Health concerns (10-20% have mental health issues)**
- **Externalizing, Internalizing, and ADHD are the most common Problems**
 - **9% (6.1 million) received an ADHD diagnosis**
 - **7 % (4.5 million) diagnosed with a conduct problem**
 - **10% (4.4 million) have been diagnosed with anxiety and /or depression.**



Summary: Other Concerns

Others

- Communication
- Social Problems
- Academic Functioning
- Adaptive skills



Other Compounding Factors

Factors

- Trauma
- ACES
- Poverty
- Mobility
- Family Community support
- Others



So what can we do about it?

- All for the problems listed prior are able to be reliably identified, are best treated early, and effective prevention and treatment options exist for use in the schools.
- Evolution of models for addressing these types of difficulties.....
- Public Health Model
- RTI
- MTSS
- S/L a good example of preventative service

Commonalities between effective models

- Early Screening for identifying students at risk
- Emphasis on tier 1 programming to address needs of all.
- Tiered levels of intervention for matching student need
- A reliance on **Data** and **Data-based decision making** to drive implementation



Recent MTSS Symposium: Each participating school asked to discuss..

- a) implementation- challenges, tips, lessons learned;
- b) programming: instruction and intervention - scientific basis, use across the 3 tiers, resources/time required; and of course
- c) use of data- both universal screening and progress monitoring to inform programming and to evaluate outcomes





Baldwinsville

Central School District

Achieving our full potential together.

NASP
2019

MTSS to Support Students' Behavioral Health

Implementation in Schools



Achieve educational
excellence and high levels
of learning for all

Promote collaboration,
innovation, and flexibility
to prepare students for
their future



Ensure equal access,
opportunity and choice
for all students

Strategic Goals

Provide every student with the educational experiences and opportunities that will foster the full development of his or her potential.



Baldwinsville Demographics



Mental Wellness Committee



RtI shift to MTSS



Pilot at Elden and VBE

Background

BUY IN....



- Communication to all stakeholders
- Mindset shift – why?
- Time and training
- Address concerns related to how information would be used and communicated to parents.

Structures Already in Place

Professional Learning Communities (PLC)

Instructional Leadership

Building Level Data Teams (BLDT)

Grade Level Data Teams (GLDT)

Instructional Support Team (IST)

Implementation

Challenges

Building
Leadership

Building
Culture

Consistency

Actions

MTSS Training / Boston
Building Administration,
Psychologists, SWs

Positivity Project

Use of SUNY Oswego
Practicum Students to
expand (2-5 Elementary
Buildings)

Building Level Implementation

- PBIS
- Positivity Project
- BLDT and GLDT
- Use of Grow the Green Protocol at GLDT
- Use of progress monitoring / flex items at IST



Grow the Green Protocol (GLDT)

Behavioral Concern scales:

- **Strength:** Put a star/asterisk * next to the scale that has the greatest percentage of students in the green (Low Risk)
- **Concern:** Highlight the scale that has the lowest percentage of students in the green (Low Risk)

Conduct	<input type="checkbox"/> Negative Affect	Cognitive/Attention
<i>Externalizing concerns</i> such as anger management, aggression, bullying, and deviance	<i>Internalizing concerns</i> such as anxiety, depression, withdrawal	Concerns around attention, focus, organization, planning and memory

Adaptive Scales:

- **Strength:** Put a star/asterisk * next to the scale that has the greatest percentage of students in green & blue (typical & strength combined).
- **Concern:** Highlight the scale that has the lowest percentage of students in the green & blue (typical & strength combined).

<input type="checkbox"/> Social	Academic Functioning
Maintaining friendships, communication skills	Academic performance, attendance, following directions

The problem I'm interested in addressing is:

Cognitive/Attention

- listening to directions and starting tasks independently
- difficulty following 2-step and 3-step directions, everything needs to be simplified
- lack of stamina
- after unstructured times (breaks, lunch, fire drill, specials...), difficulty getting focused and back on track

Academic Functioning

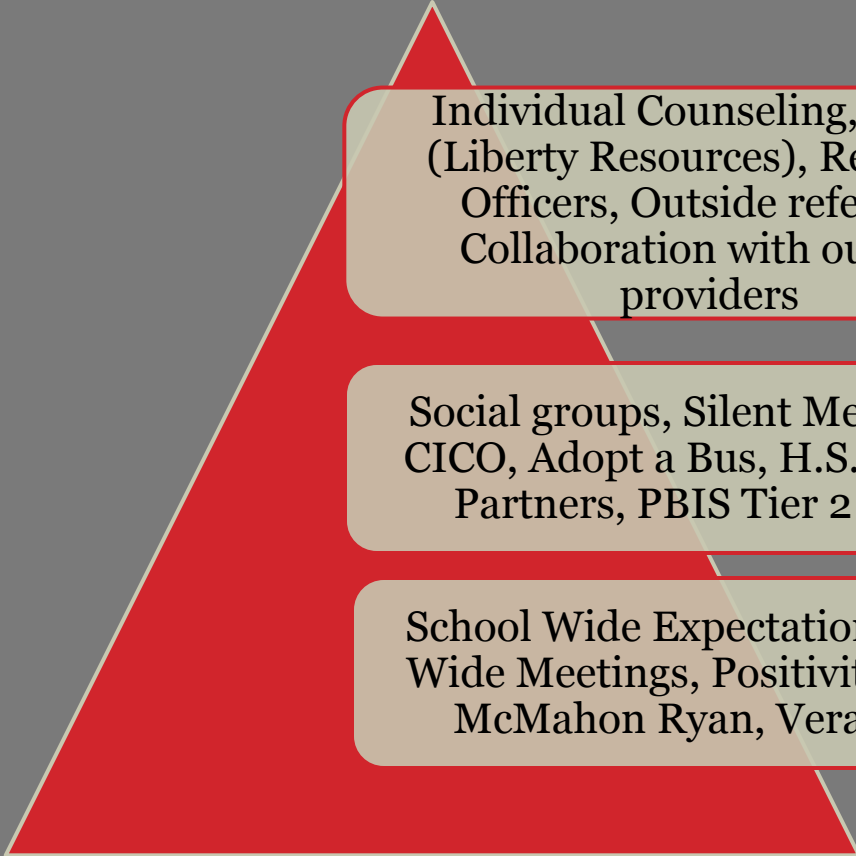
- following directions (from Cognitive/Attention area) definitely affects academics
- not starting tasks independently or completing work on time - some students are always a few steps behind

The strategy I've selected to address this area is:

Mystery Motivator - "mystery rewards" on index cards (kids brainstorm ideas), place into envelope and use strategically as needed

PAT (Personal Activity Time) - tally marks for transitions completed before timer goes off (start at 2 minutes), each tally equals 30 seconds of extra play time on Friday

Interventions / Supports



Individual Counseling, SBMC (Liberty Resources), Resource Officers, Outside referrals, Collaboration with outside providers

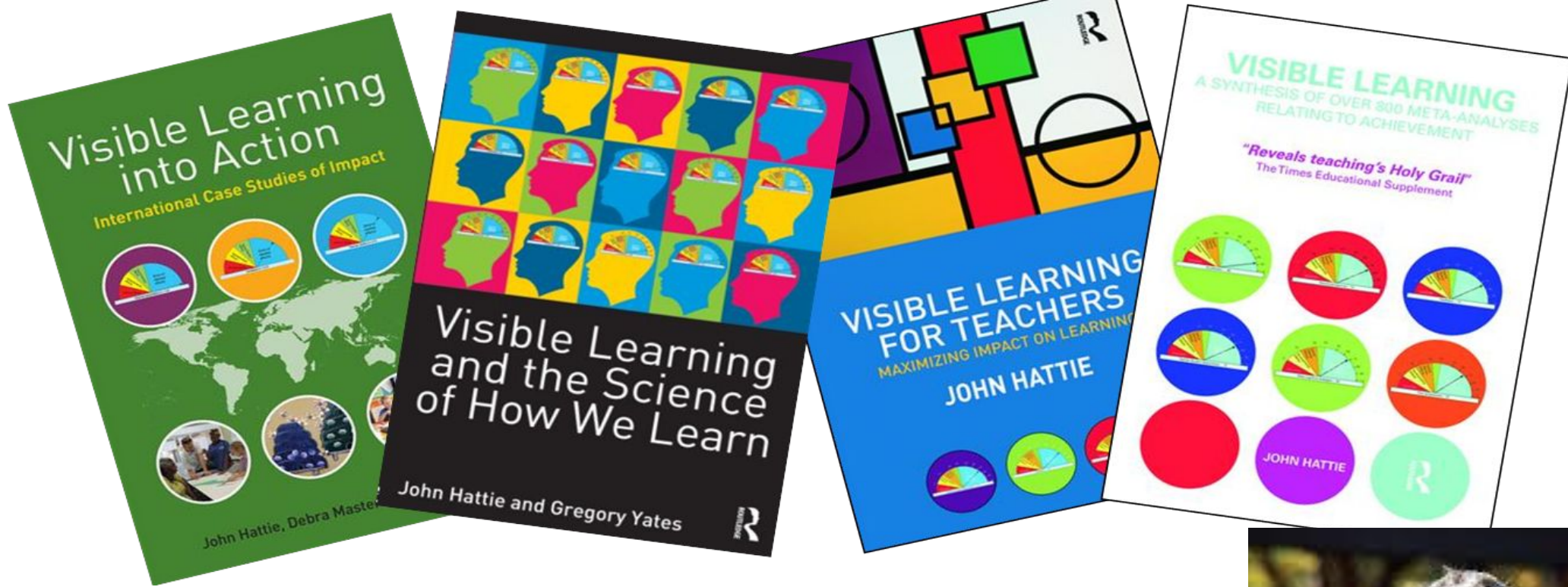
Social groups, Silent Mentoring, CICO, Adopt a Bus, H.S. Student Partners, PBIS Tier 2 Team

School Wide Expectations, School Wide Meetings, Positivity Project, McMahon Ryan, Vera House



DATA BASED DECISION MAKING

Baldwinsville data fall 2017, Spring 2018



John Hattie's research is based on over

- ◆ 1,137 meta-analyses,
- ◆ 50,000 studies and
- ◆ 260,000,000 students

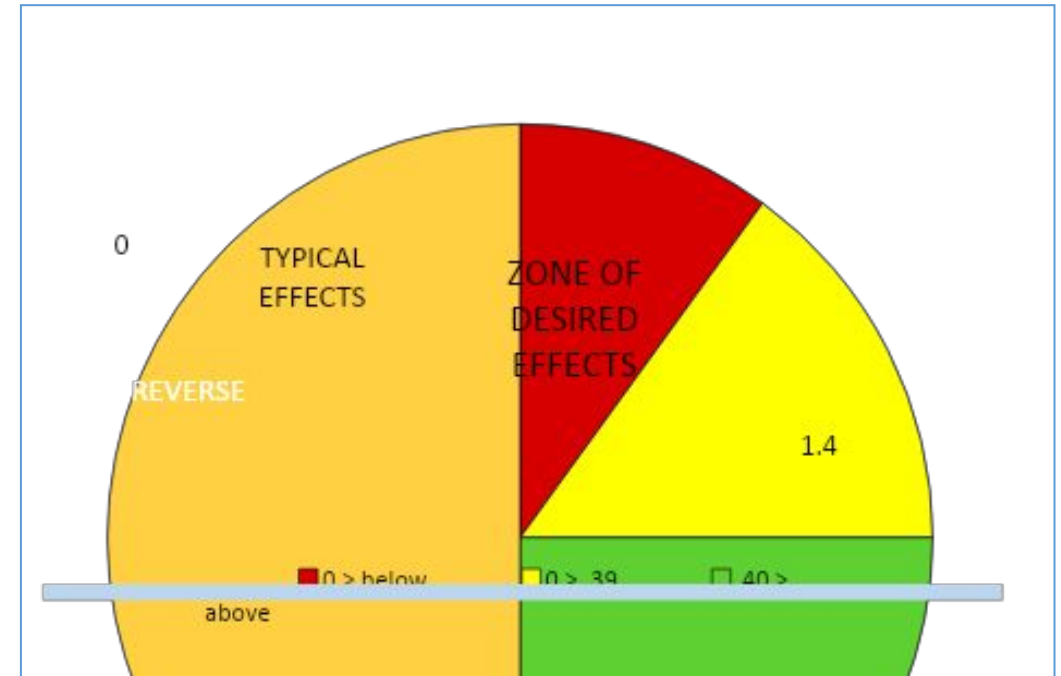
Purpose: to discover the most positive impacts on student achievement



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 0.40).

The average effect size of all Hattie’s studies is 0.4.

Working smarter based on the effect size that makes a positive impact.

Know the most positive impacts on student learning based on research.

Evidence from the students’ growth should provide the impact/proof of the effectiveness.

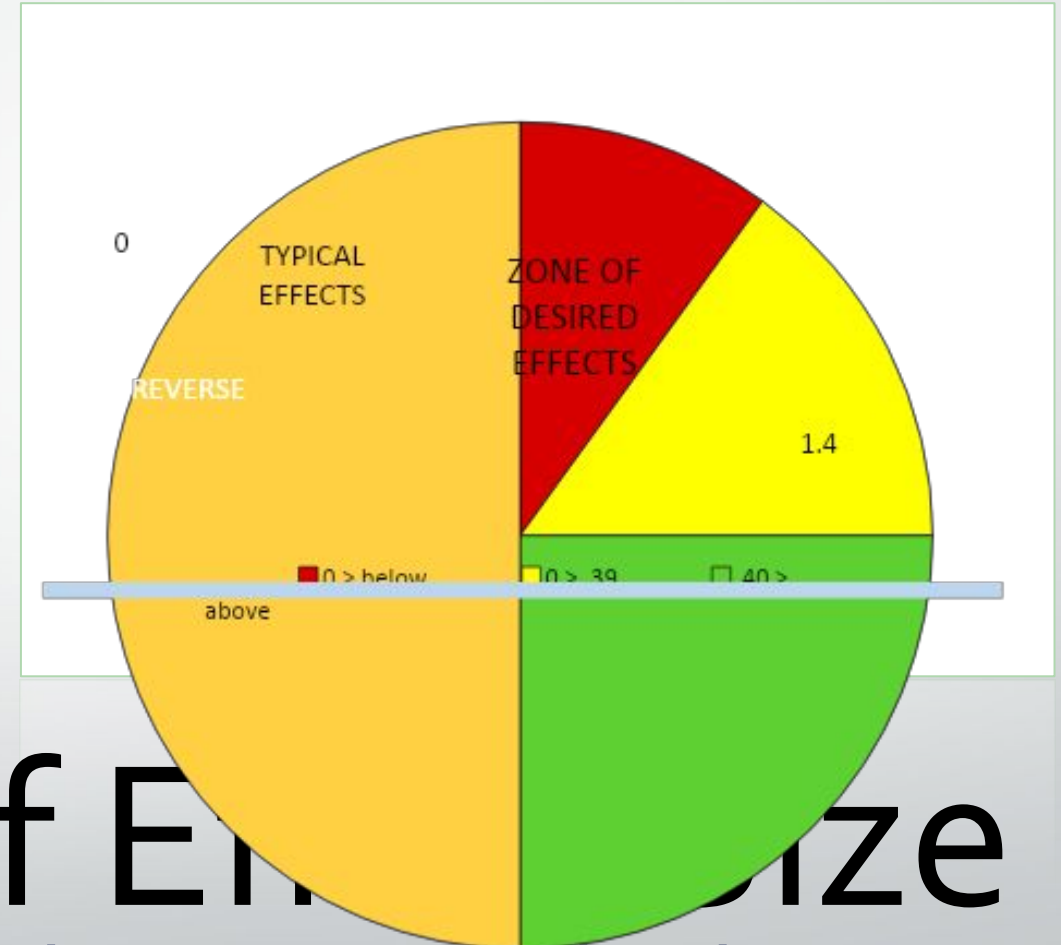
1.0 = 3 year gain

>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

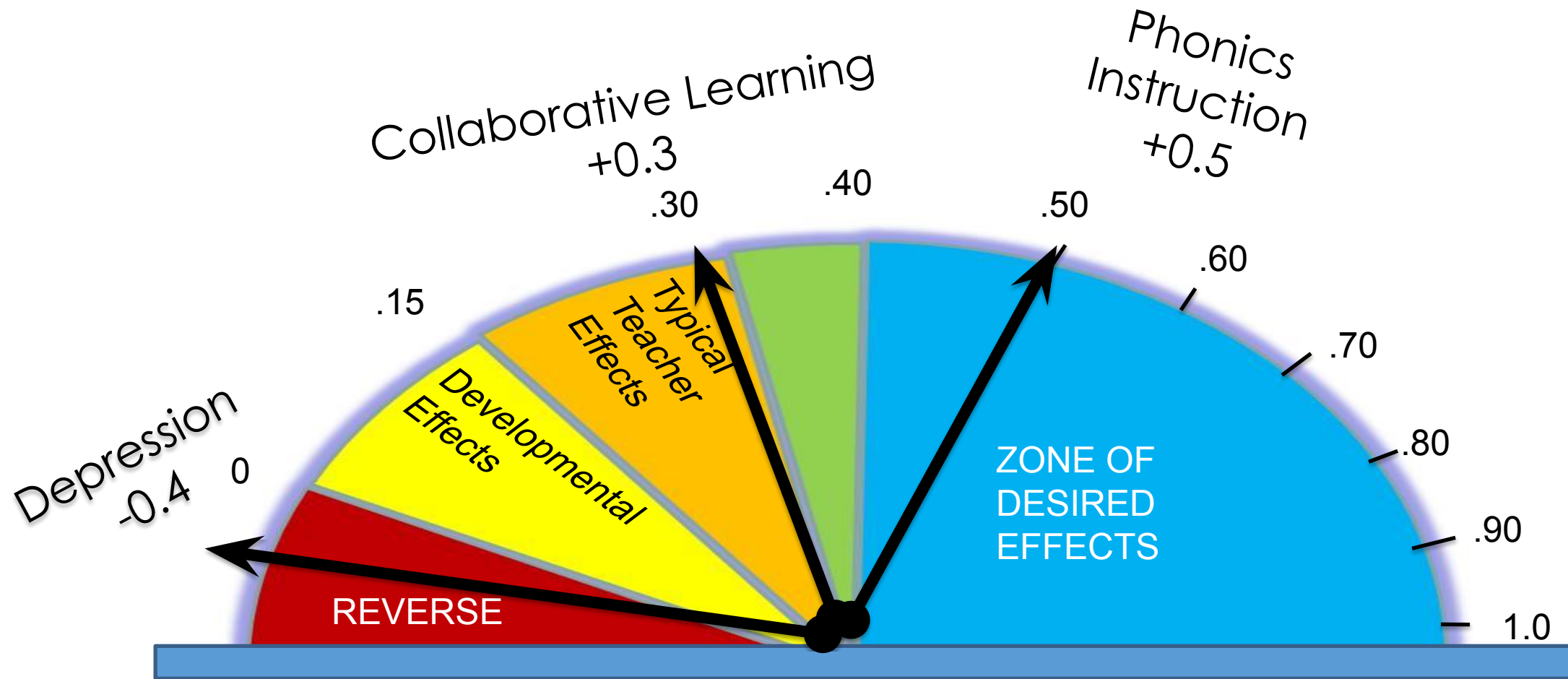
0.00 = no effect on student learning

<0.00 = student learning is negatively effected

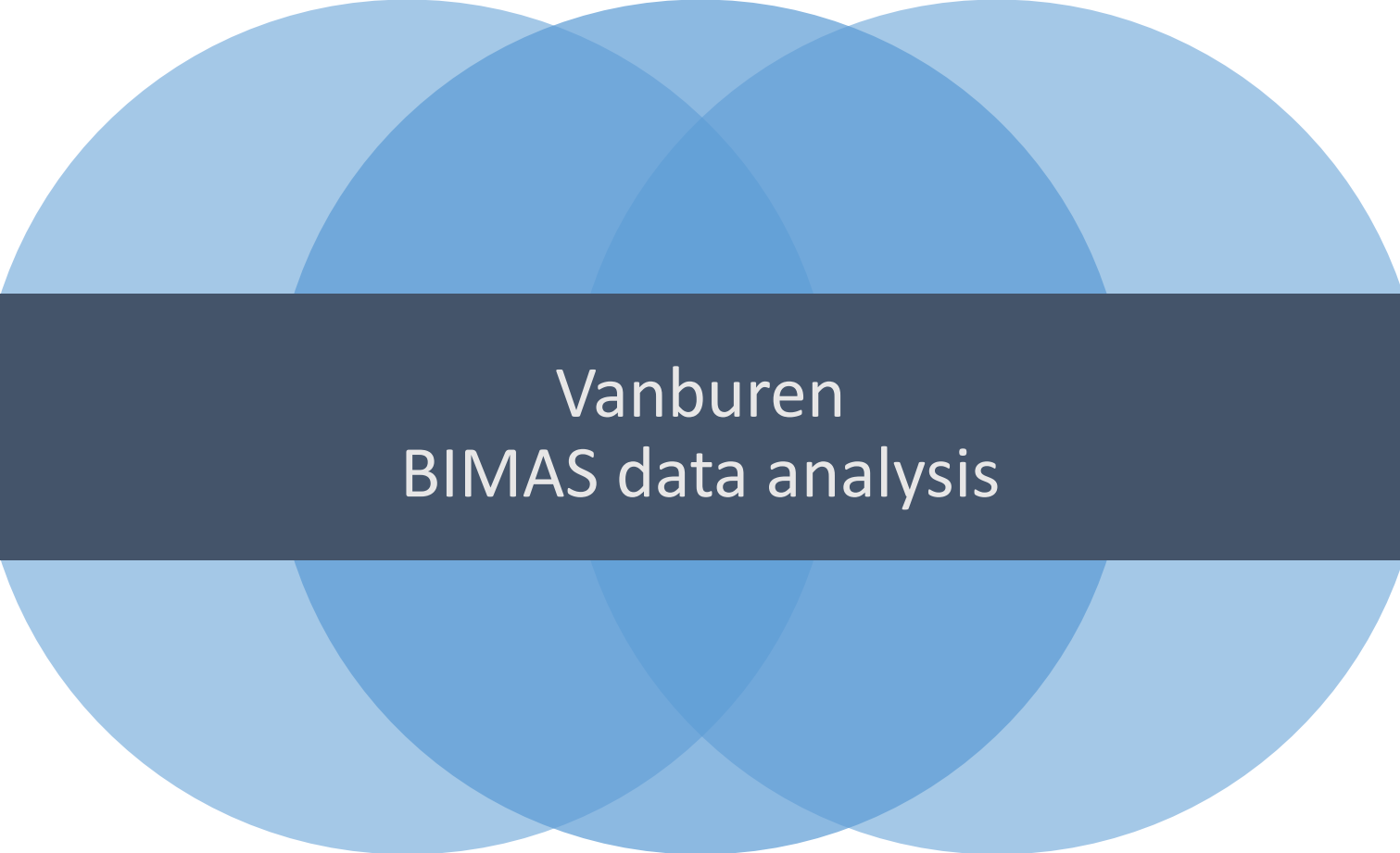


Use of Effect Size
*to discover the most positive impacts
on student achievement*

Effect Sizes: Impact on Learning



John Hattie, Visible Learning
<http://visible-learning.org/>

Three overlapping circles in shades of blue, arranged horizontally. The circles overlap in the center, creating a darker blue area. A dark blue horizontal bar is superimposed over the center of the circles.

Vanburen
BIMAS data analysis

Van Buren 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,

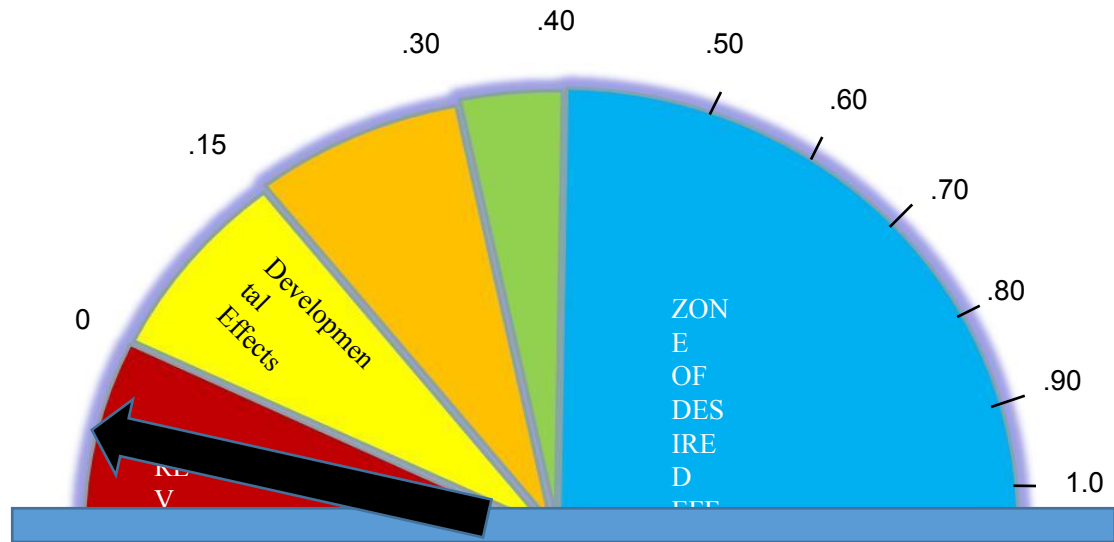
Change for students who were assessed as “Some Risk”

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

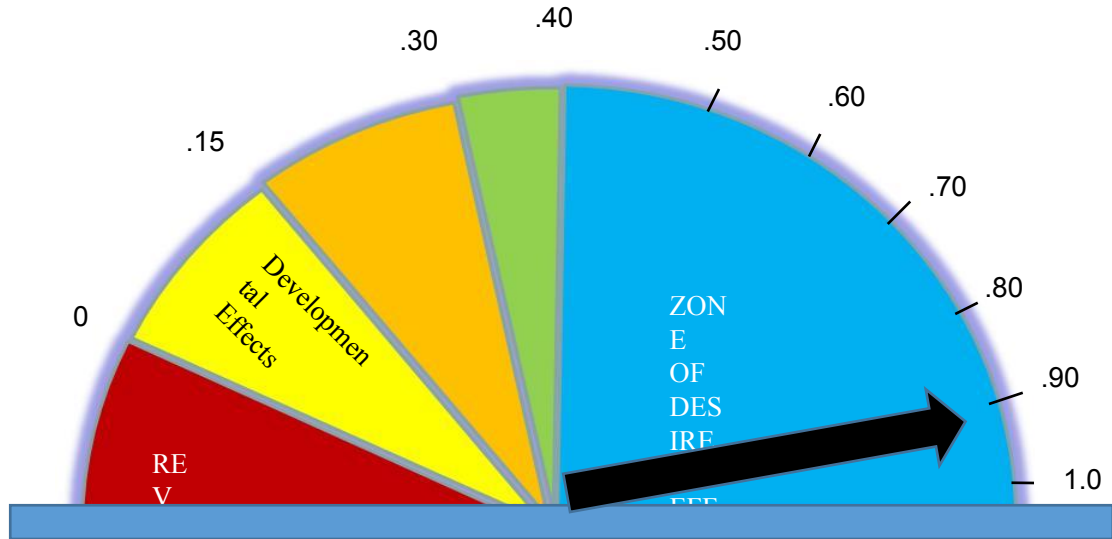
Effect Size refers to the magnitude of the impact on student outcomes



Conduct
-.45
(Reverse)

Effect Sizes for Some Risk Students

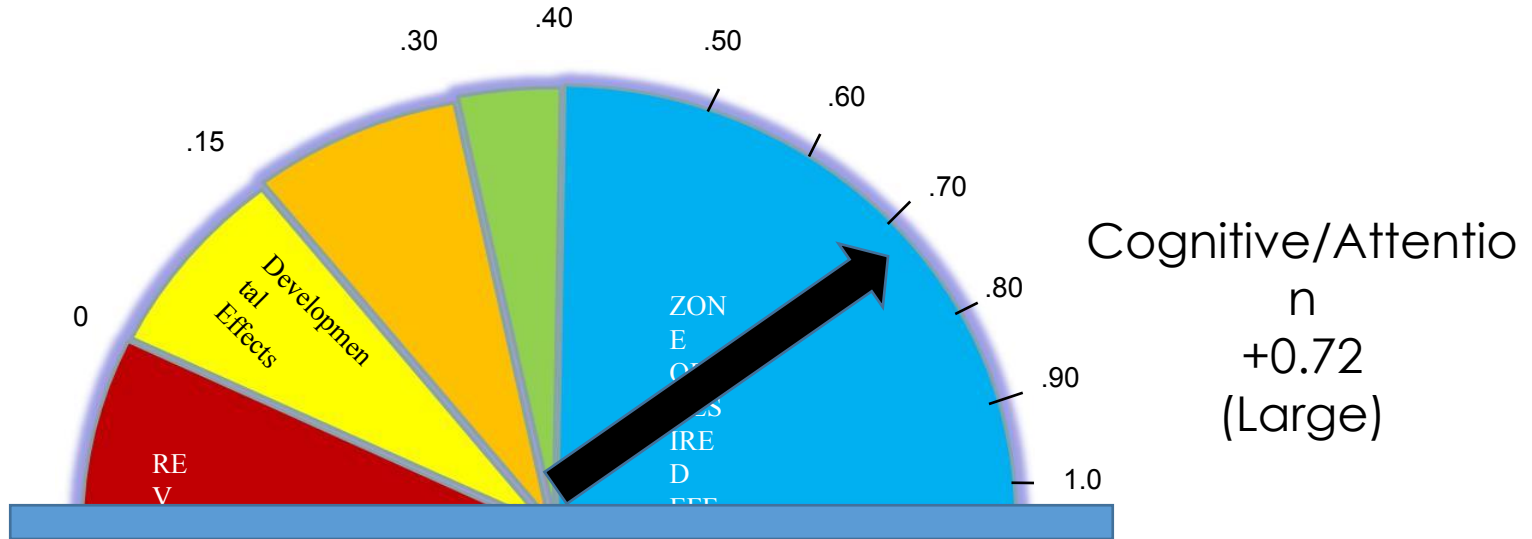
Effect Size refers to the magnitude of the impact on student outcomes



Negative Affect
+0.92
(Large)

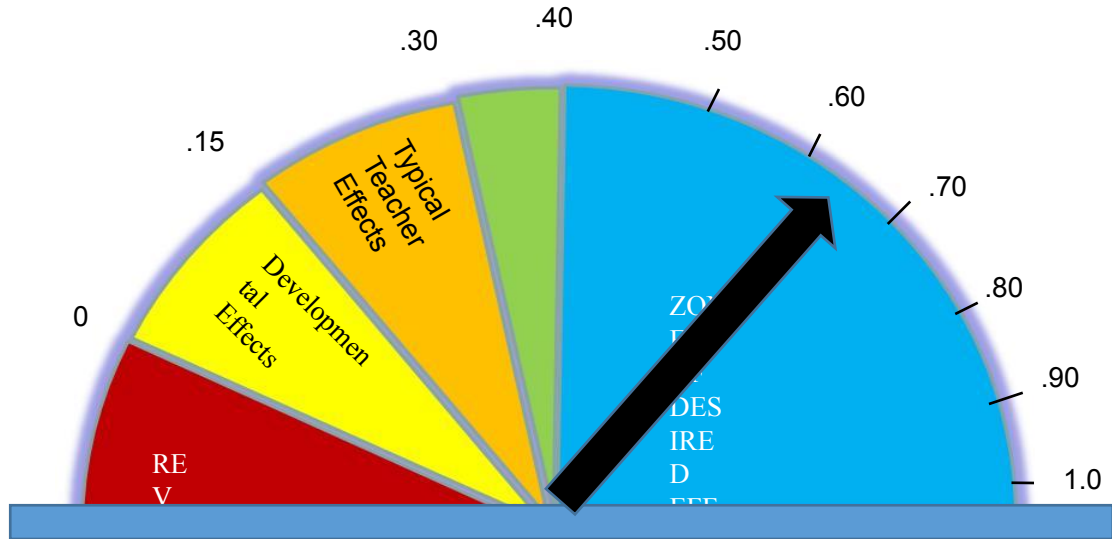
Effect Sizes for Some Risk Students

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



Effect Sizes for Some Risk Students

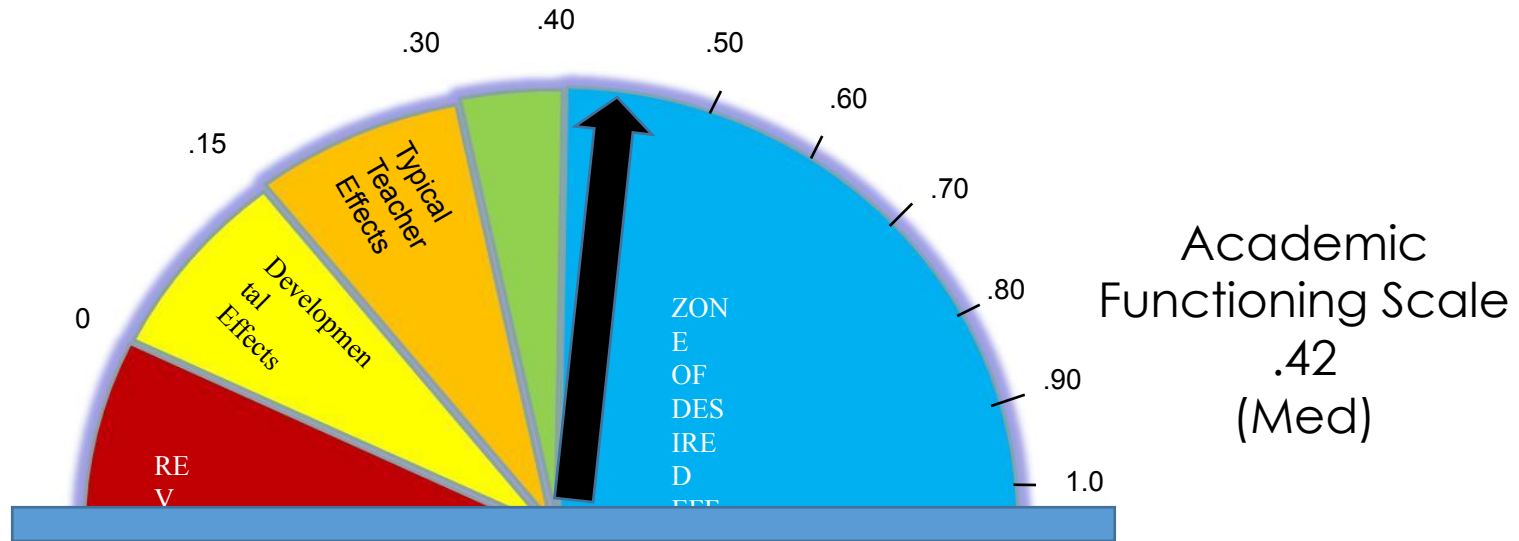
Effect Size refers to the magnitude of the impact on student outcomes



Social Scale
.7
(Med high)

Effect Sizes for Some Risk Students

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



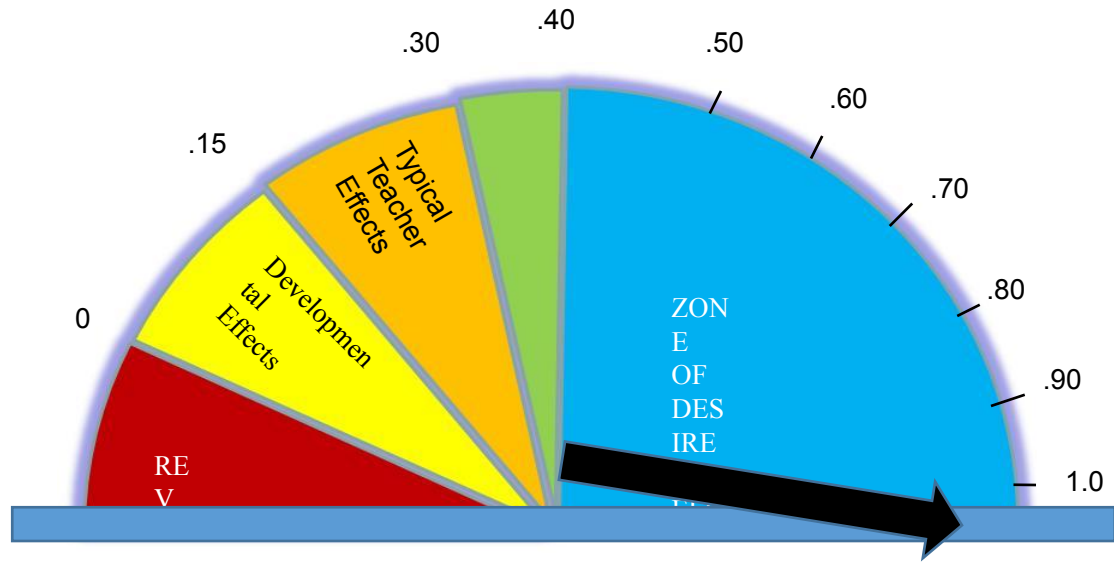
Change for students who were assessed as “High Risk” for behavioral scales or “Concern” for adaptive scales.

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

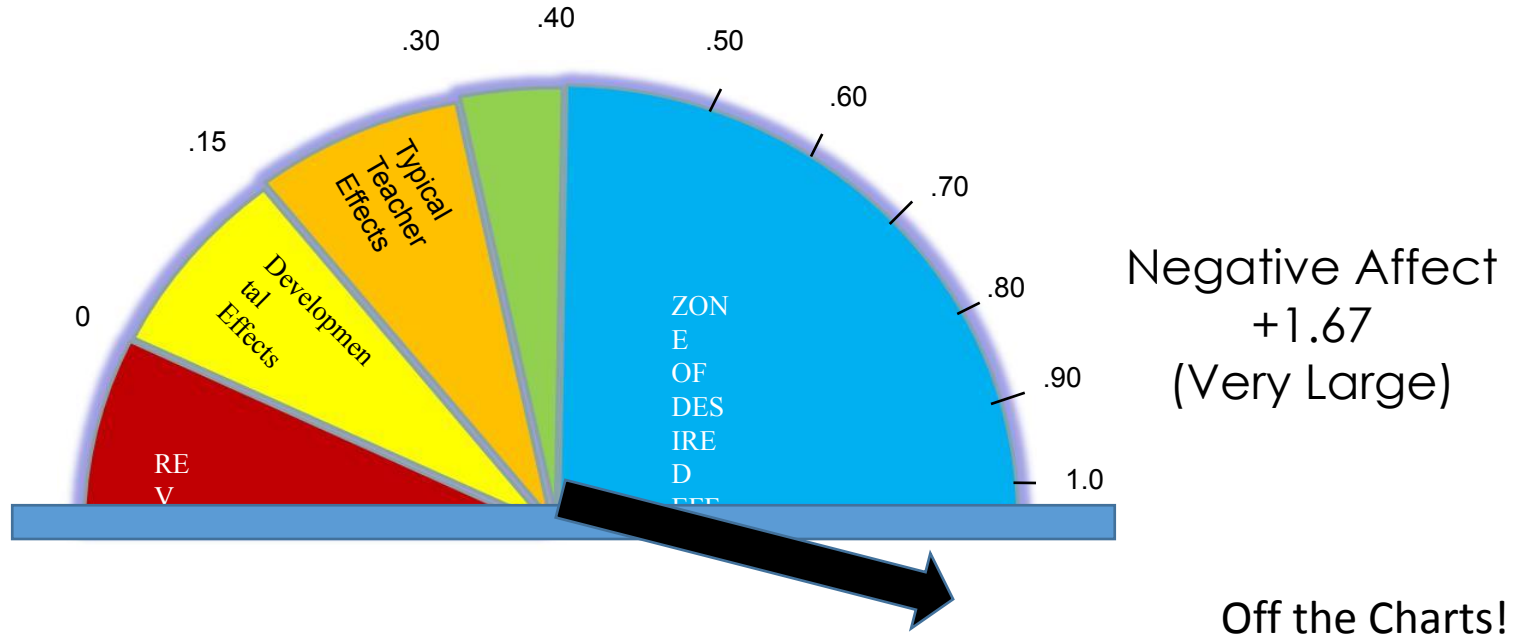


Conduct
+1.16
(Very Large)

Off the Charts!

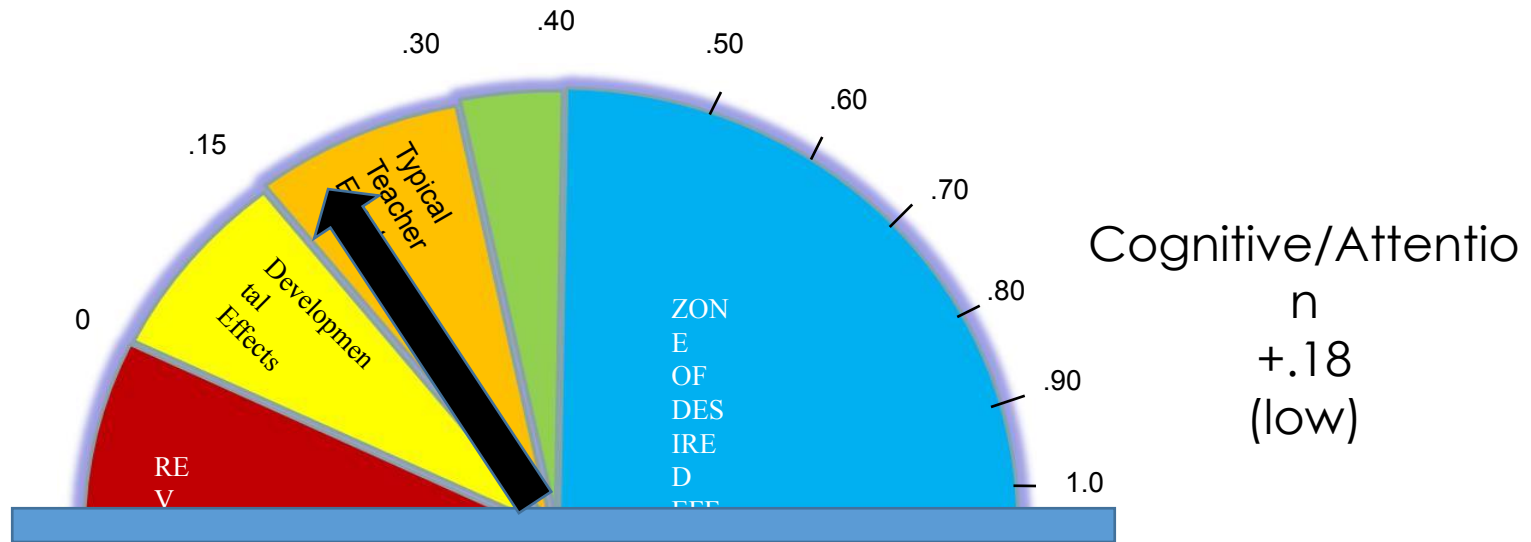
Effect Sizes for High Risk Students

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



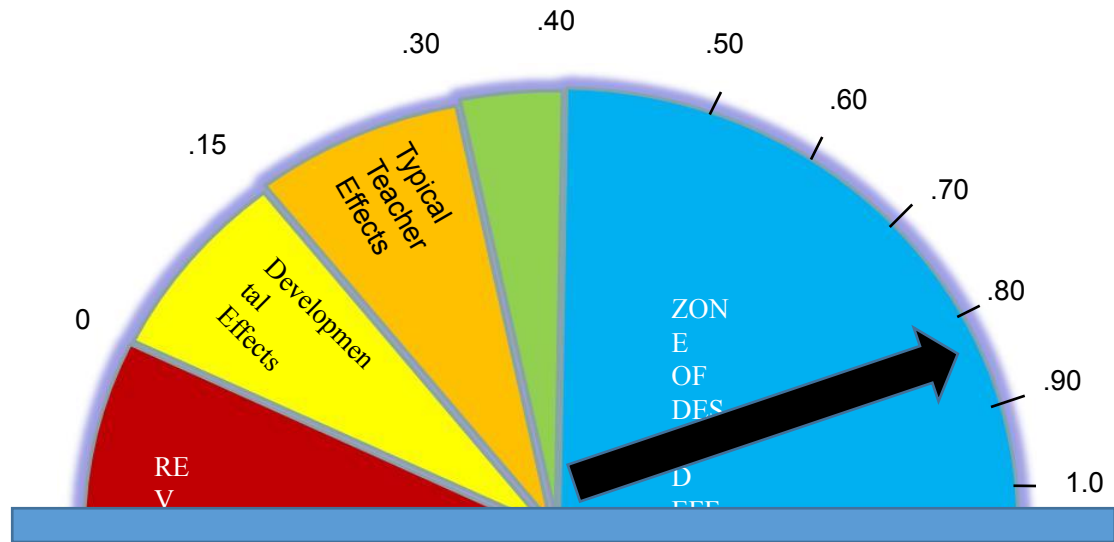
Effect Sizes for High Risk Students

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



Effect Sizes for High Risk Students

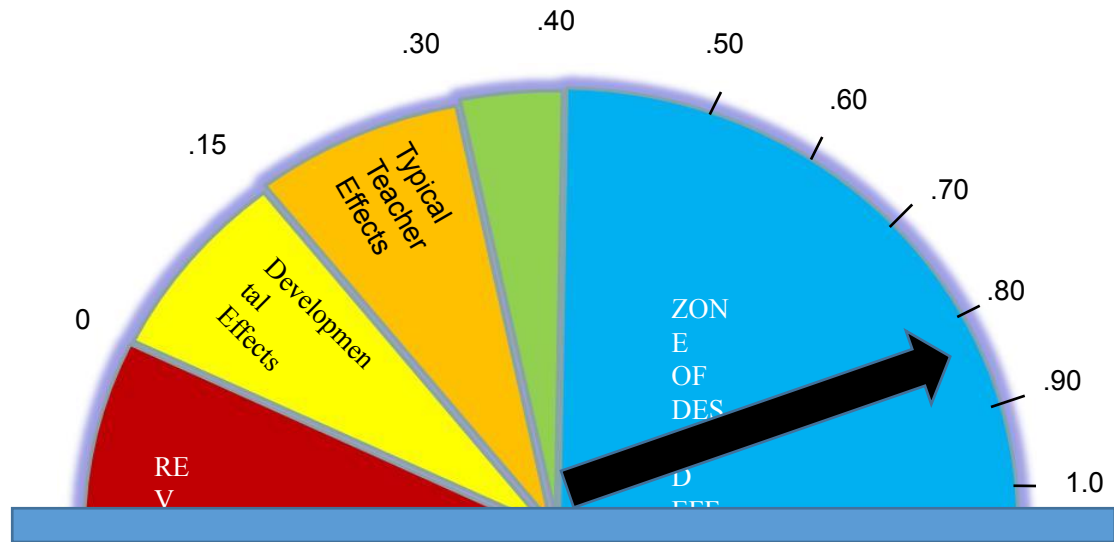
Effect Size refers to the magnitude of the impact on student outcomes



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)

Implications?

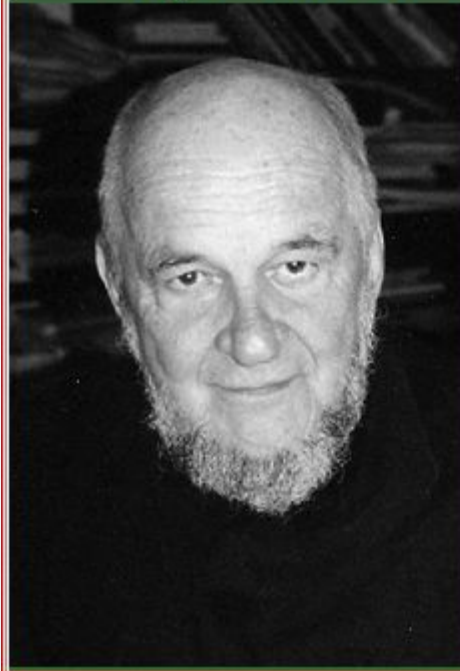
- Tier 1 programming can provide effective intervention for students assessed in the yellow and red levels of concern.
- To assess intervention effect it is important to assess change by students' level of risk. Since most students are in the typical range the small change they exhibit can mask the larger gains made by students with higher levels of concern.
- Effect size is a valuable metric to compare change across groups and interventions.



A Public Health Model

[http://www.uvm.edu/~
galbee/bio.htm](http://www.uvm.edu/~galbee/bio.htm)

George W. Albee



**George W. Albee, Ph.D.
Professor Emeritus**

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Tel: (802) 656-2670

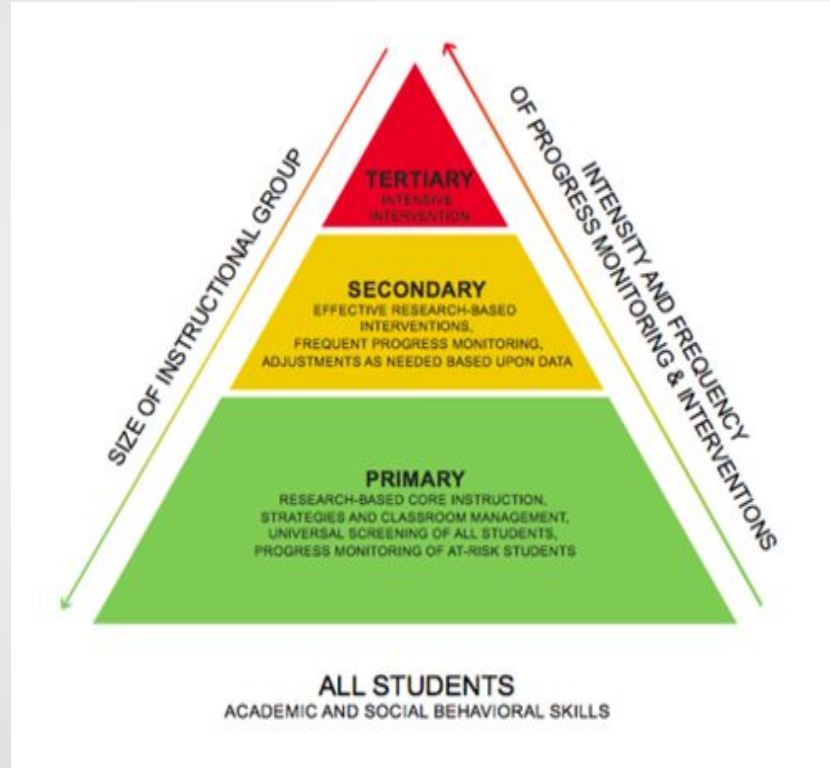
7157 Longboat Drive North
Longboat Key, FL, 34228
Email: gwalbee@webtv.net

C.V.

"No mass disorder afflicting mankind is ever brought under control or eliminated by attempts at treating the individual."

The evolution of 3 tiered models of support

MTSS
Multi Tiered
Systems of Support



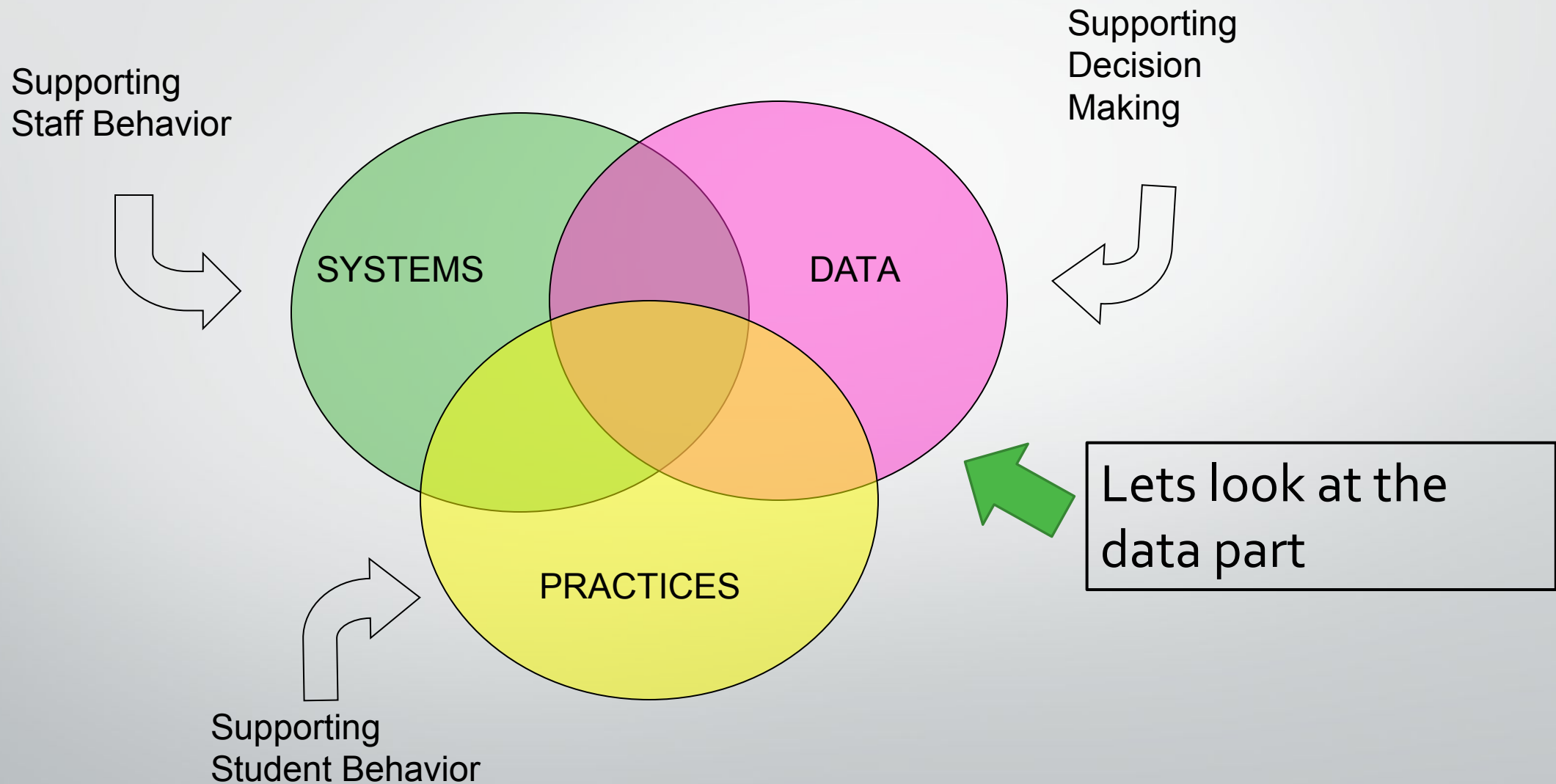
RTI
Response to
Intervention

PBIS
Positive Behavioral
Interventions and
Supports

ISF
Interconnected
Systems
Framework

Q: What is the **foundation** for all effective tiered systems of support?

Positive Behavioral Interventions & Supports



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? **SO HOW DO I KNOW?**



Selecting a Universal Screening Measure:

Technical Adequacy Considerations

Norms-utility

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

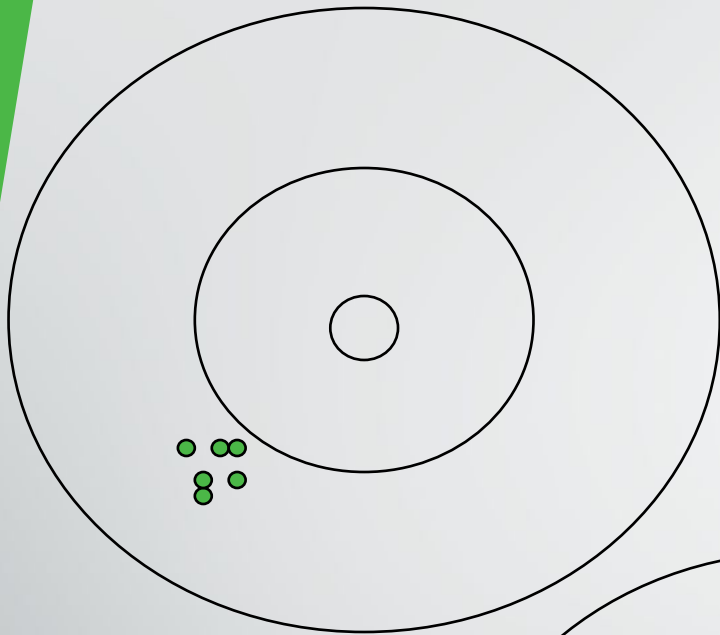
Reliability-accuracy

- Internal consistency
- Test retest
- Inter-scorer

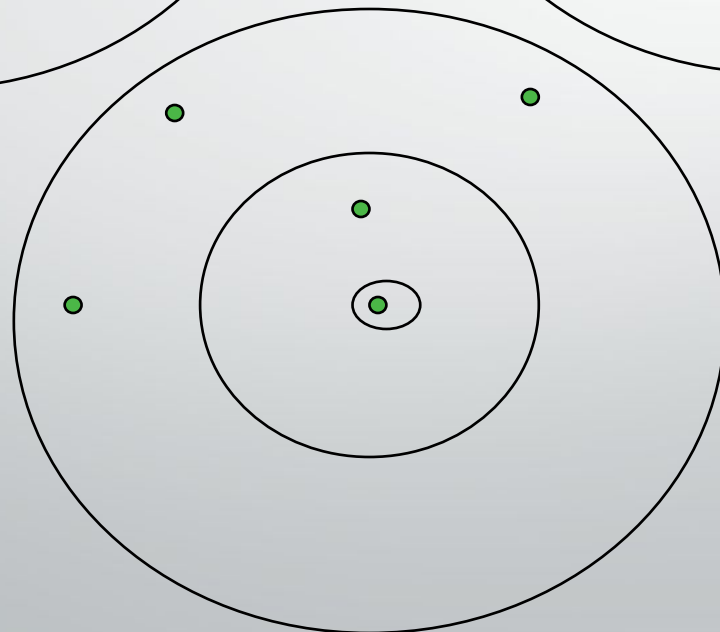
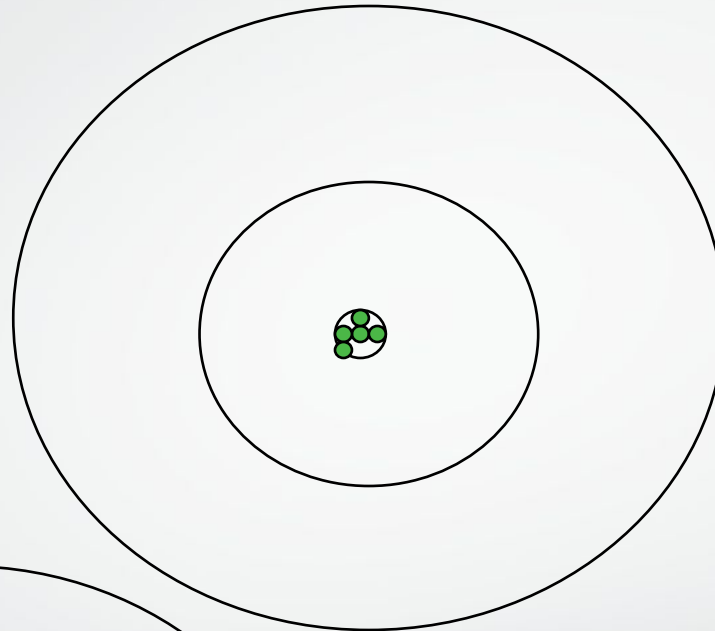
• Validity-meaningful, screening ability

- Content
- Concurrent
- Predictive-Screening Accuracy: can't have this without clinical and typical samples

Reliable – not valid



Reliable & Valid



Not reliable or valid

- ❑ A test can be reliable and still not valid, but..
- ❑ An unreliable test can never be valid
- ❑ Consider the reliability of most EWS indicators



Assessing the Utility of Screening Measures: Importance of Classification Statistics

- **Sensitivity**
 - ability of a test to correctly identify those with risk/ disorder.
- **Specificity**
 - is the ability of the test to correctly identify those without risk/disorder.
- **Efficiency/ Correct classification rate**
 - percentage or proportion of correct group classifications
- **Positive predictive power-**
- **Negative predictive power-**

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

Case in Point: Early Warning Systems EWS

- The ABCs of EWS are attendance, behavior, and course grades
- EWS are utilized in 31 states
- Claim to use readily available data to *accurately* predict students at-risk or off-track for high school graduation.
- Florida Mandates EWS from K-12



Consider the use of EWS in Florida

- Florida Senate Bill 850- requires the collection and use of EWS in grades 6-8
- FL House Bill 7069- requires the collection and use of EWS in Elementary schools
- **Have the claims about EWS and related legislation gone beyond the Science?**



Consider these claims...then the source

- **The graduation rates for students with even one indicator has been found to range from 15-25% depending on the indicator and the context**
- **Further, the pathways students take leading to school dropout or delayed graduation can be identified as early as 1st grade for some students and 6th grade for the majority of students**



Consider these claims...then the source

- The graduation rates for students with even one indicator has been found to range from 15-25% depending on the indicator and the context
- Further, the pathways students take leading to school dropout or delayed graduation can be identified as early as 1st grade for some students and 6th grade for the majority of students
- Balfanz, R., Stenson, T. (2012). Using data to build early warning systems ([Webinar](#)) **USDOE. This is actually not true!**
- Cited in A fact sheet “Early Warning Systems” disseminated by the Florida Department of Education and the U. of South Fla.
- Hammond, C., Linton, D., Smink, J., & Drew, S. (2007). *Dropout risk factors and exemplary programs*. Clemson, SC: National Dropout Prevention Center, [funded by] Communities in Schools, Inc.
- **This is a funded technical report that actually does not say this!!!!**

What does that report Actually say?

- Described dropping out of school as more of a process—rather than an event—that begins in early in childhood and continues throughout a child’s school experience
- Knowledge of a student’s risk factors in the 9th grade was not as good a predictor as knowledge of factors from 1st grade onward.
- **No School Risk Factors Identified in Two Data Sources**



Hammond, C., Linton, D., Smink, J., & Drew, S. (2007). Dropout risk factors and exemplary programs. Clemson, SC: National Dropout Prevention Center, [funded by] Communities in Schools, Inc.

Selecting measures for screening: Be careful!

- Similar to the used car market the sales pitch is intriguing but not as important as a good inspection
- Use your knowledge of psychometrics to select and appropriately use screening measures

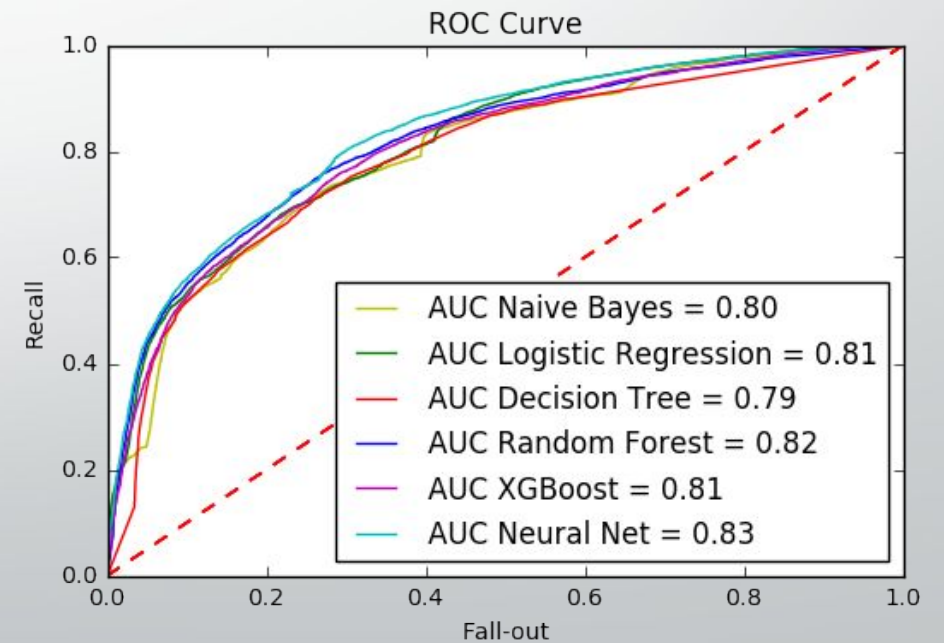


Why look at classification stats?

- **EWS.** Demographic factors have been strongly associated with dropping out of school (Rumberger, 1987, 2004) including increased rates of drop out among males, African Americans, Hispanics, low socioeconomic (SES) families, and schools in urban and rural contexts. Some EWS studies/claims fail to control for these factors
- Many EWS studies focused on Sensitivity without Specificity or Efficiency
- For example reporting that an EWS correctly identifies 92% of students who will drop out without looking at the % of graduates who would also be identified.

Browsers, Sprot, Taff. (2013). Do We Know Who Will Drop Out?
A Review of the Predictors of Dropping out of High School:
Precision, Sensitivity, and Specificity

- Used Relative Operating Characteristic (ROC) analysis to compare the Classification Statistics of 110 dropout flags constituting EWS's across 36 studies



Browsers, Sprcott, Taff (2013)

Findings: When they analyzed studies to compute classification Stats

- many of these dropout indicators are no better than a random guess

For Example

- one middle school study found that participation in 1 or less extracurricular activities correctly identified 94.7% of eventual drop-outs.
- They failed to report that this flag also captured 81.6% of students who actually graduated

Browsers, Sprot, Taff. (2013)

Another Example

- Another example of this issue, Pagani et al. (2008), Reported that their EWS predicted 97.1% of students who dropped out.
- Yet failed to report that only 6.8% of all of the dropouts had the specific combination of flags (sensitivity of .068)

EWS and Social Emotional Screening Measures

- Apples and Oranges are both fruit yet one makes great pies and the other a fine martini
- EWS provide useful data to schools trying to improve school completion rates/ reduce drop out rates. EWS are supported for use in high schools
- Social-emotional UA screening- used to identify students at risk for behavioral health problems **early** to improve intervention efforts. Supported for use starting in Pre-K through grade 12



Common Behavioral Screeners: considering correct classification

Free:

- Strengths and Difficulties Questionnaire (SDQ)
- Student Risk Screening Scale (SRSS)

Commercially available:

- Behavior and Emotional Screening System (BESS)
- Systematic Screening for Behavior Disorders (SSBD) *the gold standard*
- Social Skills Improvement System (SSIS)
- Behavior Intervention Monitoring & Assessment System (BIMAS)

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.

5/26/2021

Screening Classification Stats

Free measures

Screeners		Sensitivity	Specificity	Positive Predictive Value	Negative Predictive Value
SDQ	Parent	.47	.94	.46	.96
	Teacher	.43	.95	.44	.94
	Self	.23	.94	.35	.92
SRSS	Teacher	--			

Source: Jenkins et al., 2014. A critical review of five commonly used social-emotional and behavioral screeners for elementary or secondary schools. Contemp School Psych.

Screening Classification Stats Commercial Scales

Screenener	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				

Source: Jenkins et al., 2014. A critical review of five commonly used social-emotional and behavioral screeners for elementary or secondary schools. Contemp School Psych.

Summary: Selecting an MTSS Measure

For Screening

- Normed/ Studied with representative groups
- Reliably- accurate
- Valid- meaningful
 - Relates to important constructs
 - Has adequate content
 - Relates well to other variables of interest
 - Classification stats available- usefulness for screening

For PM: additional considerations

- 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?

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>



So Lets Chat

- The key to success is early identification and treatment
- The Foundation: Universal Screening for Behavioral Health (like vision, hearing, S/L, early literacy)
- Are you doing Screening? If so what are you using?





Selecting Measures for Universal Screening and MTSS

Important considerations

First consider why you are administering a screening measure

- For each demographic there are high incident and preventable difficulties that lead to diminished health, impairment, and even death
- An important function of screening is to assess for signs and symptoms associated with these specific health related difficulties.
- Relying on EWS indicators for screening at the elementary level does not accurately identify these high incident and preventable difficulties



First consider why you are administering a screening measure

- At the secondary level internalizing disorders intensify as do externalizing problems
- 17% of high school students suffer from serious suicidal ideation and 7% report 1 or more attempts in the last 12 months
- We need screeners to accurately identify these high incident and preventable difficulties



MTSS Measures have Evolved

- These measures
 - Use new/different model for test development
 - Good for screening and progress monitoring
 - Broad band, (pre) K-12
- Today's Example: The BIMAS₂
- (Behavior Intervention Monitoring and Assessment System-second edition)
(BIMAS-2)



MTSS Measure Used



**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

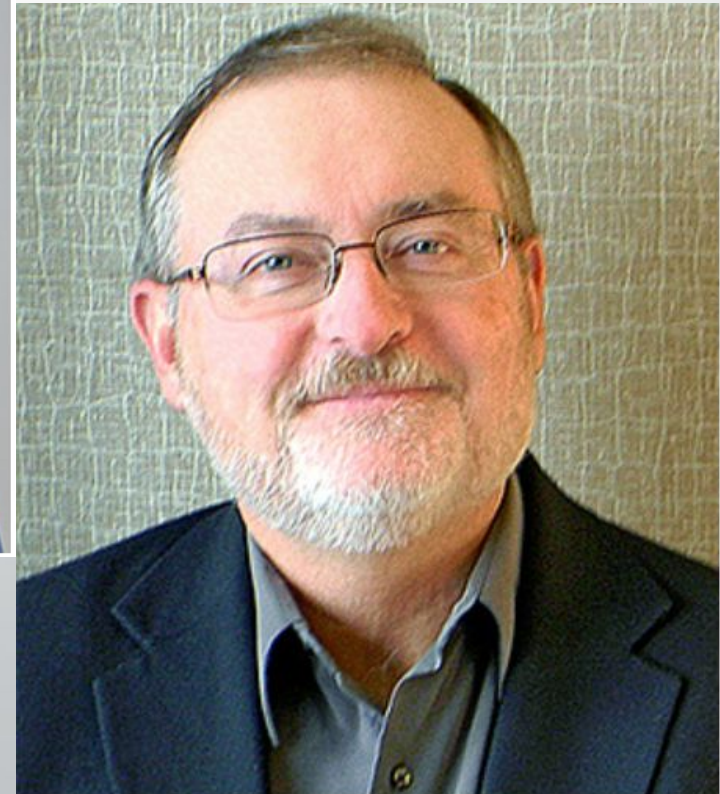


James L. McDougal



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.



Based on over 20 years of Meier's research: Developing intervention sensitive measures

- **Nomothetic item selection rules for tests of psychological interventions.** *Psychotherapy Research*, Vol 7(4), Win **1997**. pp. 419-427. guidelines for creating and selecting change-sensitive items and tasks.
- **Evaluating change-based item selection rules.** *Measurement and Evaluation in Counseling and Development*, Vol 31(1), Apr, **1998**.
- **A comparison of two item-selection methodologies for measuring change in university counseling center clients.** Weinstock, Marjorie C.; **Meier, Scott T.**; *Measurement and Evaluation in Counseling and Development*, Vol 36(2), Jul, **2003**
- **Improving Design Sensitivity through Intervention-Sensitive Measures.** Meier, Scott T., *American Journal of Evaluation*, Vol 25(3), **2004**

BIMAS theoretical foundation

- Utilized Meier's approach to construct the scale using his Intervention Item Selection Rules (IISR) procedures
- Data from a variety of clinical and school settings (e.g., Meier, 2004, 2000, 1998).
- IISR procedures lead to scales with
 - demonstrated larger treatment effect sizes
 - adequate reliability estimates.



Dr. Scott Meier

Intervention Item Selection Rules

Table 1
Brief Description of Intervention Item Selection Rules

Rule	Description
1	Ground scale items in theoretical and empirical literature relevant to applicable interventions and target problems
2	Aggregate at appropriate levels
3	Assess range of item scores at pretest
4	Detect change in an item's score after an intervention
5	Assess whether change occurs in the expected direction
6	Examine whether differences in change exist between intervention and comparison groups
7	Examine whether intake differences exist between comparison groups
8	Examination relations between item scores and systematic error sources
9	Aggregate selected items into scale(s) and cross-validate



Dr. Scott Meier

Concluding comments

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The BIMAS is a multi-informant web-based delivered assessment system

- RATINGS available for:
 - Parents
 - Teacher
 - Self (12 -18 yrs old)
 - Clinician
- Grades pre-K to 12
- Secure server platform
- Reports tailored to MTSS tiers
- Assessment results are immediately available

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

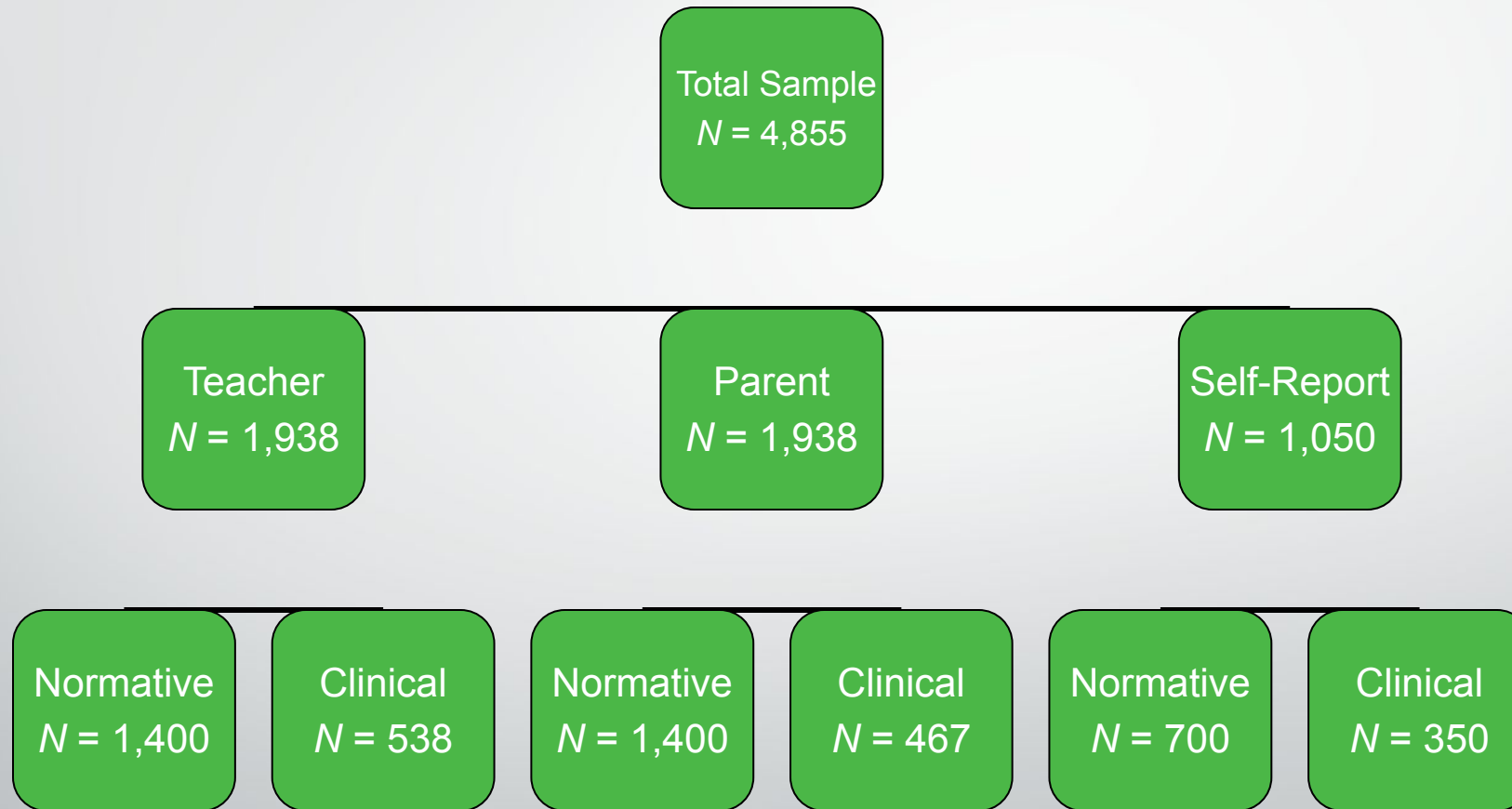
Bimas overview

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

BIMAS-2 (standard)

- 34 items
- Assesses behavioral concerns and adaptive functioning.
- Multiple Raters
- Normed for screening, shown to be change sensitive for PM
- On-line/ sever based
- Variety of reports across tiers for use by MTSS

Large Normative Sample



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%

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



Tier 1

Reviewing Screening Data:

Tier One data is reviewed to:

- Inform tier 1 intervention efforts
- Identify at-risk students
- Evaluate intervention efforts across time



Examining the data: what do you see?

REPORTS

UA Status

Overview

Progress

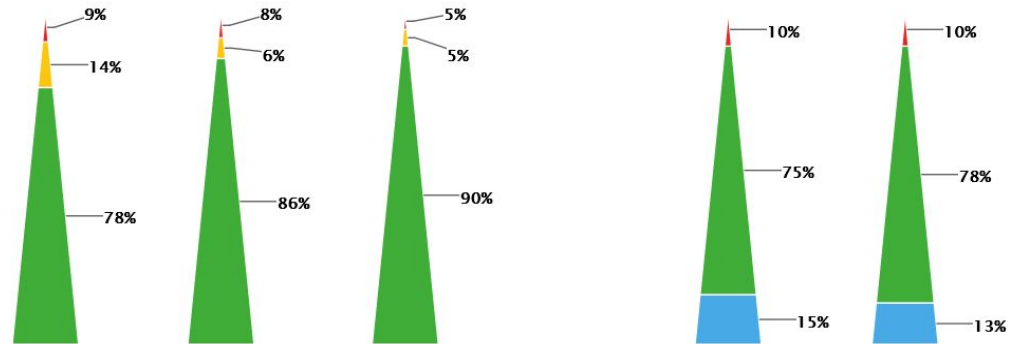
RISK LEVEL PYRAMIDS

UA Period:

Summer 2016

School(s):

All



Levels Of Risk	Conduct	Negative Affect	Cognitive/Attention	Levels Of Functioning	Social	Academic Functioning
High Risk	7 (9%)	6 (8%)	4 (5%)	Concern	8 (10%)	8 (10%)
Some Risk	11 (14%)	5 (6%)	4 (5%)	Typical	60 (75%)	62 (78%)
Low Risk	62 (78%)	69 (86%)	72 (90%)	Strength	12 (15%)	10 (13%)
Total	80 (100%)	80 (100%)	80 (100%)	Total	80 (100%)	80 (100%)

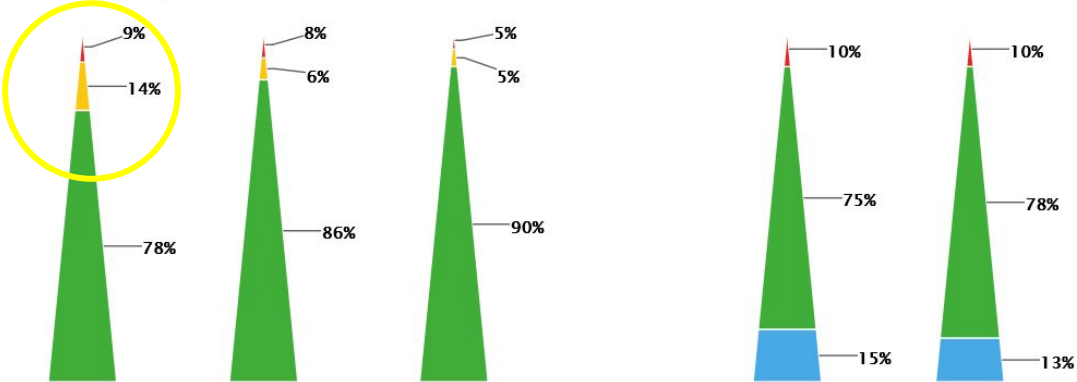
Examining the data: what do you see?

REPORTS

[UA Status](#)
[Overview](#)
[Progress](#)

RISK LEVEL PYRAMIDS

UA Period:
 School(s):



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Tier one: Intervene with Conduct

scale items

- ✓ appeared angry.
- ✓ engaged in risk taking behavior(s).
- ✓ fought with others (verbally, physically, or both).
- ✓ lied or cheated.
- ✓ lost his/her temper when upset.
- ✓ was aggressive (threatened or bullied others).
- ✓ was suspected of using alcohol and/or drugs.
- ✓ was sent to an authority for disciplinary reasons.
- ✓ was suspected of smoking or chewing tobacco.

- Increase reinforcement for positive expectations
- Teach social problem solving, anger management, cooperation.
- Emphasize prosocial skills
- Create connections with “at risk” students
- Special roles, responsibilities, jobs

UA data is also reviewed to ID at risk students

CLASS/GROUP STUDENT SCORES

UA Period:
 School:
 Grade:
 Teachers:

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

To assess change over time.

UA T-SCORE LEGEND

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

UNIVERSAL ASSESSMENT T-SCORE DATA - TEACHER

Scales	<u>Summer 2016</u> 07/01/16	<u>Spring 2016</u> 03/01/16	<u>Winter 2015</u> 12/01/15
Conduct	64	45	59
Negative Affect	76	39	58
Cognitive Attention	72	36	49
Social	40	66	57
Academic Functioning	34	63	

- ⊕ Conduct
- ⊕ Negative Affect
- ⊕ Cognitive Attention
- ⊕ Social
- ⊕ Academic Functioning

Press to reveal
score
comparisons

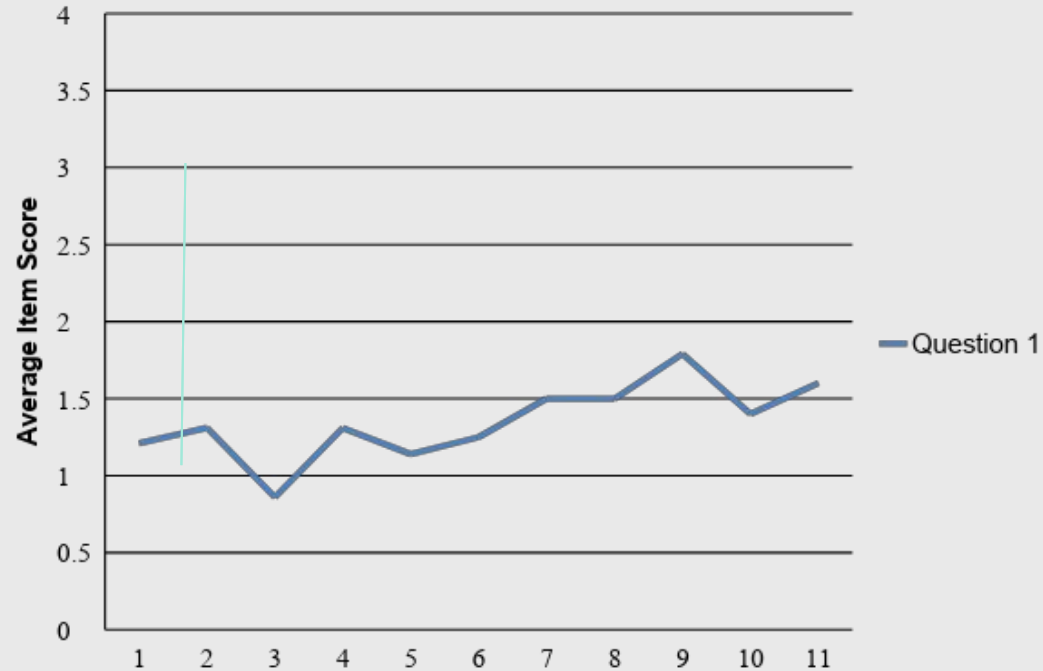
And to assess the magnitude of change.

SOCIAL

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	

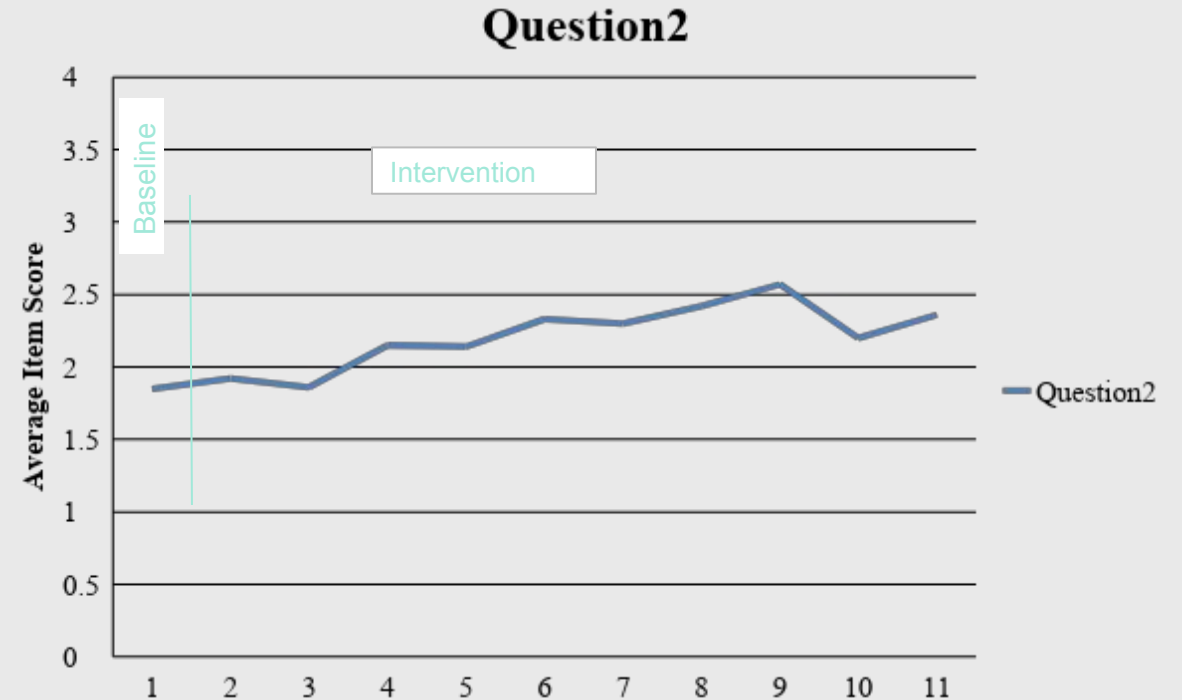
Flex Assessment Results (social skills learning stations K-1)

1. Worked out problems with others



Hedges $g = .5$
PND: 78%

2. Appeared comfortable when relating to others



Hedges $g = .43$
PND: 100%



Next Steps.....

All Elementary Buildings now familiar with benchmarking and data process

Elden and VBE Psychologists to support as needed.

Consider expanding at Middle School Level

Continue to cultivate and explore Community partnerships

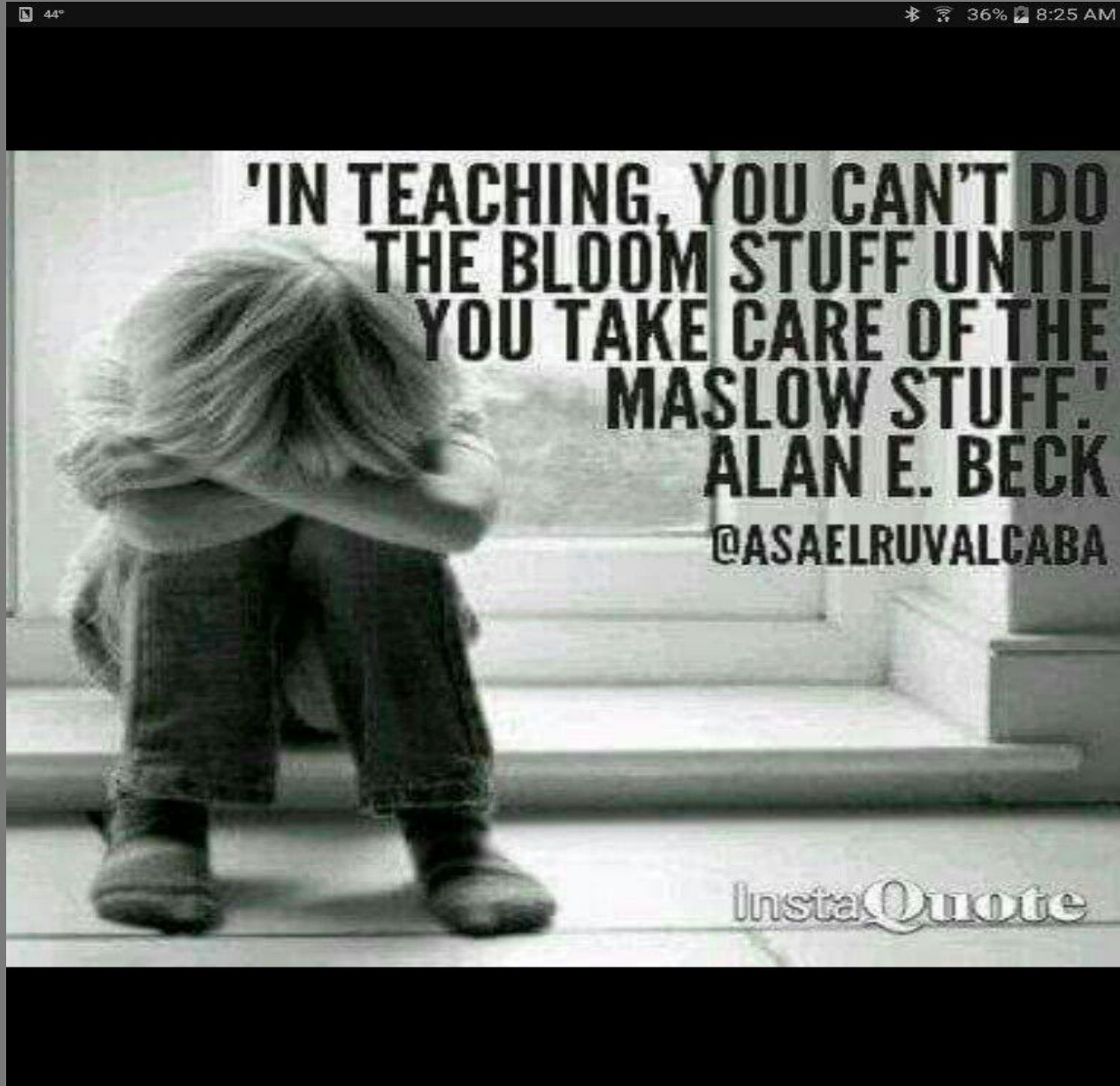
Use of Edocrina

New Director Position

SEL Curriculum

Trauma Informed, Mental Health First Aide,
Restorative Practices

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NEXT SESSION

- Programming
- Implementation
- Planning
- Resources
- Introduction to CBHM



District Level Barriers

- Leadership change
- Buy-In
- Initiative fatigue
- Staffing
- Funding



School Level Barriers

- Time
- Initiative fatigue
- Competing demands
- Staff Capacity
- Administrative Buy-in





We are CBHM

Meet the faces of the
Behavioral Health Services Department!!
www.cbhmboston.com

BIMAS₂ Access

- The BIMAS₂ is a subscription based commercial product (this stuff gets expensive)
- I will set folks up with a trial account for free unlimited use (3-12 months)
- Researchers- 1 year free, 40% off after that
- Students- free
- Discounts available: Ask McDougal



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