INTRODUCING THE

BIMAS™ 2

Behavior Intervention Monitoring Assessment System

www.BIMAS2.com

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

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Three authors coming together from three different perspectives



James L. McDougal



Achilles N. Bardos

Scott T. Meier



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What is the BIMAS-2?

A web-based behavior Assessment Platform that includes:

(a) A brief behavior rating scale designed for :

Universal Screening-

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

Progress Monitoring of:

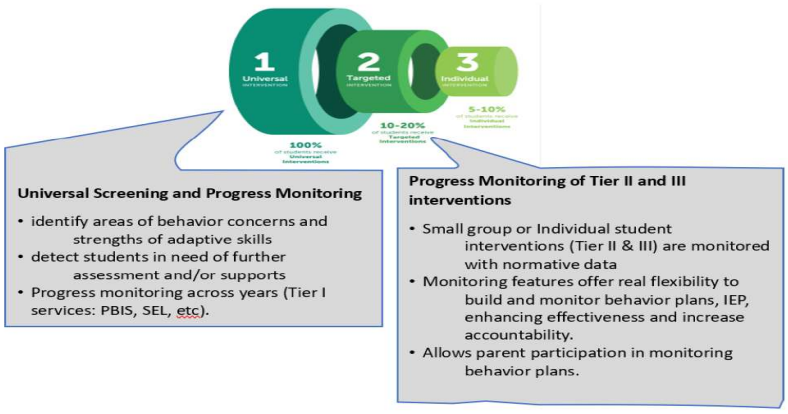
- System-wide interventions (Tier I- PBIS; SEL)
- Small groups interventions (Tier II)
- Interventions for individuals (Tier III)

(b) A platform with FLEXIBITY to build and monitor BIP, IEP plans.

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The BIMAS-2 within an MTSS framework



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FORMAT & FEAUTERS OF THE BIMAS

A multi-informant assessment system

- Teacher & Parent (pre-K to 12th grade)
  - ❖ parent form delivered in English and Spanish both in text and audio format
- Self form (3rd to 12th grade)
  - ❖ form is delivered in multiple languages and in audio format (English and Spanish)
- Manual entry of forms is available (printable at no cost)

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BIMAS-2 features

- Paper/pencil or technology format?
  - Delivery of the Standard Form for both the Universal Screening and Progress Monitoring is digital for all parties
    - TEACHERS,
    - PARENTS (English and Spanish)
    - STUDENTS
    - OUTSIDE Mental Health providers

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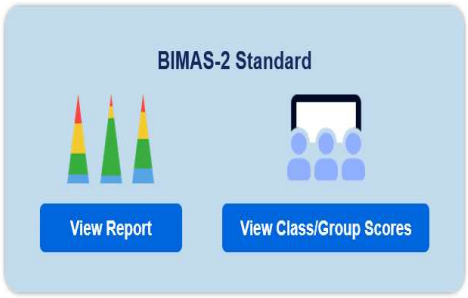
USES OF THE BIMAS

- **For School-based mental health providers who are required, wish or ordered to implement**
  - **A broad universal screener of mental health/SEL, an outcome measure sensitive to monitor and detect intervention gains.**
- Public/private organizations providing school or community-based intervention programs
- community mental health agencies
- Private practitioners

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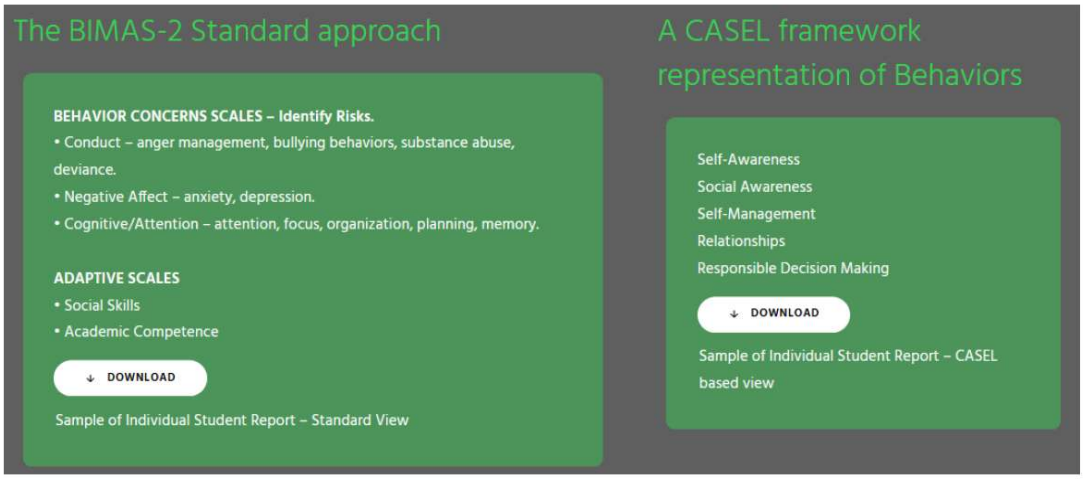
A screener with a dual-view of student behaviors





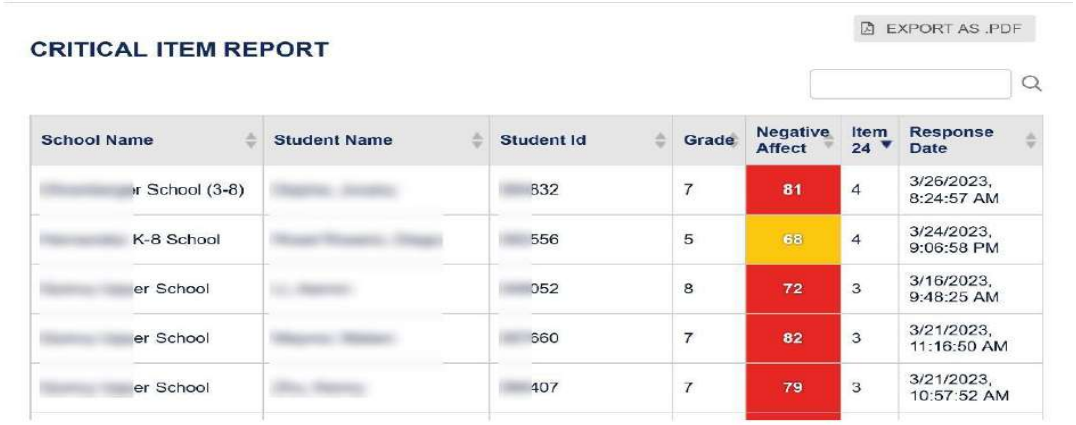
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The BIMAS-2 dual-view scales



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Identifies within seconds the students reporting thoughts of SELF-HARM



School Name	Student Name	Student Id	Grade	Negative Affect	Item 24	Response Date
r School (3-8)		832	7	81	4	3/26/2023, 8:24:57 AM
K-8 School		556	5	68	4	3/24/2023, 9:06:58 PM
er School		052	8	72	3	3/16/2023, 9:48:25 AM
er School		660	7	82	3	3/21/2023, 11:16:50 AM
er School		407	7	79	3	3/21/2023, 10:57:52 AM

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A Mental Health Screening Saved Students' Lives In This District

A district that deployed a universal mental health screening was able to intervene immediately with five students who had suicide plans

By Caitlynn Peetz

If you or anyone you know is struggling with thoughts of self-harm or suicide, help is available. Call or text 988 to reach the

Along with identifying students in imminent danger of self-harm, the screener administered in January 2022 also flagged students at "high" and "some" risk for such behaviors, as

none of this has anything to do with you or your performance," Knuth said. "This is about the kids, and it's imperfect, but if even one of those kids puts you on alert and lets you



Chalkbeat

Education news. In context.

MENTAL HEALTH

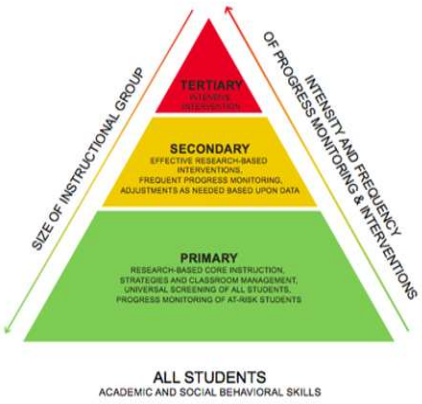
'It's OK to not be OK': How one high school saved lives with a 34-question survey

JUNE 5, 2019

By Ann Schimke ASCHIMKE@CHALKBEAT.ORG

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Background & Development



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Background, Development & theoretical foundation

The BIMAS was constructed using…..

- Meier's Intervention Item Selection Rules (IISR)
- The central philosophy of the IISRs is that **intervention-sensitive items should change in response to an intervention** and behave in a theoretically expected manner in other conditions (e.g., remain stable over time when no intervention is present).



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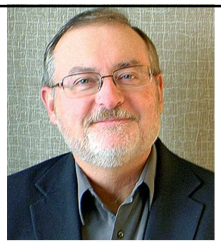
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Central philosophy of the IISRs…

- Items will share some characteristics with traditional, trait-sensitive tests.
  - theoretically based, reliable, normative data
- However, intervention-sensitive items should possess additional properties, foremost of which is that they **change in response to an intervention.**

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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

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1. Ground items in theory

1. *Ground items in previous research and theory.* Relevant research and theory provide a context for understanding the meaning of changing scores on an intervention-sensitive measure. In the area of child and adolescent psychotherapy, Kazdin (2000) noted that more than 1,000 controlled studies of psychosocial interventions for children and adolescents exist. Kazdin maintained that because ESs for all interventions averaged about .70 for children and adolescents, maturation alone cannot account for such gains. Meta-analytic studies also indicate that adolescents appear to benefit more from psychotherapy than children, although most of the difference can be attributed to the benefits received by adolescent girls (Weisz, Huey, & Weersing, 1998). Applied to this study, these findings suggest that (a) some PE-BIMAS items

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2. Aggregate Items at an appropriate level.

2. *Aggregate items at an appropriate level.* Because an item response contributed by an individual on one occasion may be influenced by random error (Messick, 1989), item responses should first be aggregated across individuals before further analyses are conducted. Similarly, test developers have long recognized that aggregation of individual item responses into scales increases the reliability and validity of measurement of the studied construct. Intervention-sensitive items are not aggregated across occasions, however, but summed across individuals and items. As was done in this study, item scores are then compared across time periods in which interventions take place to determine if change effects are present at the level of aggregated item responses.

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3. Avoid ceiling, floor & under-estimation effects

3. *Assess range of item scores at pretest.* Ceiling and floor effects inhibit detection of desired changes in intervention-sensitive tests because they can restrict the potential range of scores. In this study, a ceiling effect occurred when an item's standard deviation was added to the item mean and the resulting sum exceeded the highest value of the scale (3); a floor effect occurred when the item's standard deviation was subtracted from the item mean and the result was less than the bottom range of the scale (0). Three Strengths items in both subsamples had a ceiling effect: communicates clearly, starts conversations, and limits set with children. No floor effects were found.

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4. Demonstrate Change in Interventions

4. *Items should evidence change in intervention conditions.* Intervention-sensitive items should demonstrate change, from baseline to follow-up periods, with clients who receive psychosocial interventions (cf. Cronbach et al., 1980). For the current study, paired *t* tests were computed to examine change in item scores from intake to follow-up. Because these analyses are exploratory in nature, and the expected effects at the level of an individual item are likely to be small, an α level of .10 was set to detect statistically significant change (cf. Meier, 2000). As shown in Table 2, 12 of 19 items evidenced statistically significant change in one or both subsamples: controls temper, pays attention to speakers, stays out of trouble, communicates clearly, shares thinking, feels depressed, behaves differently, acts impulsively, fights with others, family members fight, lies or cheats, and gets failing grades.

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5. Change in the direction expected

5. *Items should evidence change in the theoretically expected direction.* All 12 items that evidenced significant change in Table 2 improved from intake to follow-up. Although clients worsened in at least one subsample on the items makes friends easily, limits set with children, and helps with household tasks, these changes did not reach statistical significance.

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6. Evaluate item change in intervention and control groups

6. *Evaluate item change in intervention and comparison groups.* Item change in intervention groups can be compared to change in items completed by available comparison groups. As noted above, Kazdin's (2000; see also Weisz, Weiss, Han, Granger, & Morton, 1995; Webster-Stratton, 1996) review found that girls evidence more improvement than boys as a result of psychosocial interventions. Meta-analytic



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7. Examine equivalence of item scores at intake between groups



7. *Examine the equivalence of items scores at intake between groups.* In the PE-BIMAS data set, intake equivalence could be examined between the two randomly created subsamples A and B. Paired *t* tests were used to assess differences between item means, and two items differed at intake: makes friends easily ($t = -1.78$, $p < .10$) and family members fight ($t = -2.37$, $p < .05$). Overall, random assignment resulted in statistically equivalent groups, providing confidence that the subsequent cross-validation analyses (IISR 9) of intervention-sensitive items can be interpreted appropriately.

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9. Aggregate selected items into scales and cross-validate.

8. *Examine* the relationship between scale items and systematic error sources. No data were available for addressing this IISR.

9. *Aggregate selected items into scale(s) and cross-validate.* The preceding IISR analyses provide a basis for understanding the relevant properties of scale items and lay the foundation for subsequent decisions about inclusion in multi-item scales.

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Dr. Scott Meier
Concluding comments

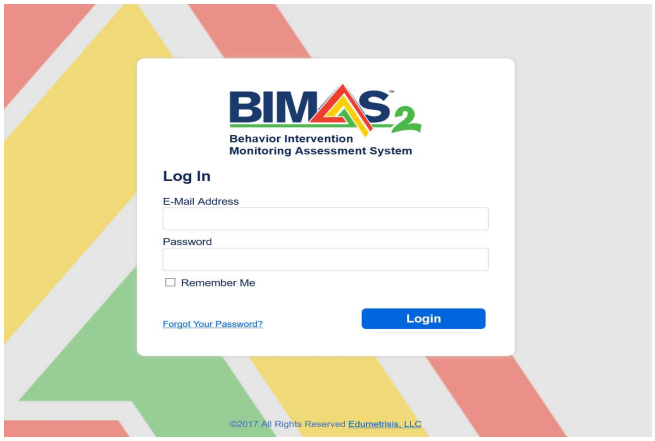
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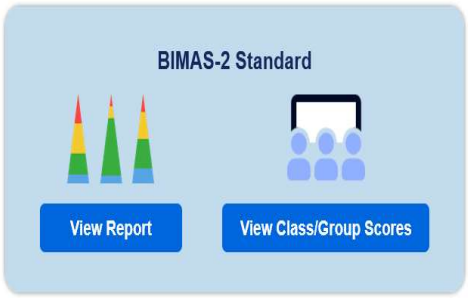
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The BIMAS-2 platform-
(live Demo if internet available)



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The BIMAS Scale Structure
A screener with a dual-view of student behaviors





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BEHAVIOR INTERVENTION MONITORING ASSESSMENT SYSTEM (BIMAS)

	BIMAS Scale	Measures…
CONCERNS (Identify Risk)	Conduct	Anger management, bullying behaviors, substance abuse
	Negative Affect	Anxiety, depression
	Cognitive/Attention	Attention, focus, organization, planning, memory
ADAPTIVE (Strengths)	Social	Friendship maintenance, communication
	Academic Functioning	Academic performance, attendance, ability to follow directions

ADDITIONAL INFORMATION: http://www.edumetrisis.com/products/282-bimas-2

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The 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.

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The Negative Affect scale

- ✓appeared sleepy or tired.
- ✓appeared depressed.
- ✓acted sad or withdrawn.
- ✓was easily embarrassed or felt ashamed
- ✓appeared anxious.
- ✓expressed thoughts of hurting self.
- ✓ was emotional or upset.

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The Cognitive/Attention scale

- ✓had trouble paying attention.
- ✓was impulsive.
- ✓had problems staying on task.
- ✓acted without thinking.
- ✓had trouble remembering.
- ✓ had difficulties with organizing things.
- ✓ fidgeted.
- ✓ had trouble planning.

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The Social Scale

- ✓shared what he/she was thinking about.
- ✓spoke clearly with others.
- ✓maintained friendships.
- ✓appeared comfortable when relating to others.
- ✓ was generally friendly with others.
- ✓ worked out problems with others.

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The Academic Functioning Scale

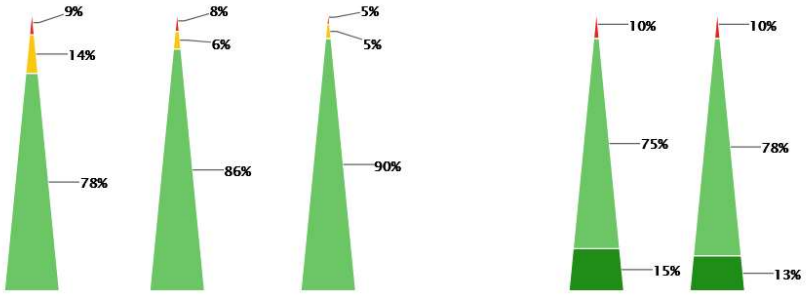
(parent & teacher form)

- ✓Followed directions
- ✓Received failing grades
- ✓Worked up to his/her academic potential
- ✓Went prepared to class
- ✓Was absent from school

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The BIMAS-2 Standard view- aggregate report



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%)**

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The BIMAS-2 Class or Group report

EXPORT AS .PDF

CLASS/GROUP STUDENT SCORES

Student Name	MTSS	Conduct	Negative Affect	Cognitive/ Attention	Social	Academic Functioning
Runte, Flossie	3	78	78	75	29	24
McDermott, Magnolia	3	76	80	72	27	26
Trantow, Korey	4	76	79	60	24	37
Kreiger, Emie	4	73	75	64	36	25
Maggio, Favian	4	73	68	77	40	30
Rogahn, Freeda	1	73	60	65	21	38
Torphy, Hank	2	73	78	68	29	24
Gerlach, Greg	4	64	76	72	40	34
Feeney, Effie	1	62	54	51	49	50
Kuhic, Susan	2	62	57	48	52	45
Sporer, Katheryn	2	62	54	52	63	45
Brekke, Alysson	4	61	51	40	60	49
Lind, Demarco	2	61	54	47	52	47

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BIMAS-2 standard view individual student record

BIMAS-2 STANDARD UNIVERSAL ASSESSMENT (UA) DATA

Overview | Conduct | Negative Affect | Cognitive Attention | Social | Academic Functioning

BIMAS-2 STANDARD UNIVERSAL ASSESSMENT T-SCORE DATA - TEACHER

Scales	Summer 2016 07/01/16	Spring 2016 03/01/16	Winter 2015 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	55

BIMAS-2 STANDARD UNIVERSAL ASSESSMENT T-SCORE DATA - SELF

Scales	Summer 2016 07/01/16	Spring 2016 03/01/16	Winter 2015 12/01/15
Conduct	35	35	42
Negative Affect	32	29	45
Cognitive Attention	31	28	44
Social	19	72	60
Academic Functioning	19	65	55

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REPORTS » GERLACH, GREG

BIMAS-2 standard view individual student record

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)

SUMMER 2016 UA RESULTS, RATER: MICHAEL HENRY

BEHAVIORAL CONCERN SCALES

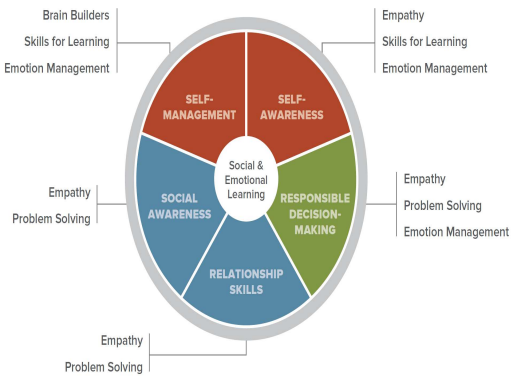
CONDUCT

T-Score	Scale Descriptor
64	Some Risk

	Item	Score	Descriptor
2	appeared angry	1	No Concern
9	engaged in risk-taking behavior	1	No Concern
13	fought with others (verbally, physically, or both)	2	Concern
17	lied or cheated	0	No Concern
21	lost their temper when upset	0	No Concern
25	was aggressive (threatened or bullied others)	0	No Concern
29	was suspected of using alcohol and/or drugs	3	Concern
31	was sent to an authority for discipline	4	Concern
32	was suspected of smoking or chewing tobacco	4	Concern

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CASEL and BIMAS-2



- Social and emotional learning (SEL) is the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions (CASEL)

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CASEL and BIMAS-2

Second Step Program Element	Key Skill(s) Developed	CASEL Core SEL Competencies	BIMAS ITEMS
Brain Builder Games (K–3)	Executive-function skills	Self-Management	BIMAS items
Skills for Learning	• Focus attention • Listen with attention • Identify and use self-talk • Be assertive • Remember directions • Stay on task • Ignore distractions	• Self-Management • Self-Awareness	• 3. had trouble paying attention • 4. followed directions. • 6. was impulsive • 7. spoke clearly with others. • 10. had problems staying on task • 14. acted without thinking. • 17. lied or cheated. • 18. had trouble remembering. • 22. had trouble with organizing and planning. • 26. received failing grades at school. • 28. fidgeted. • 30. worked up to his/her academic potential. • 33. was prepared for class. • 34. was absent from school. •

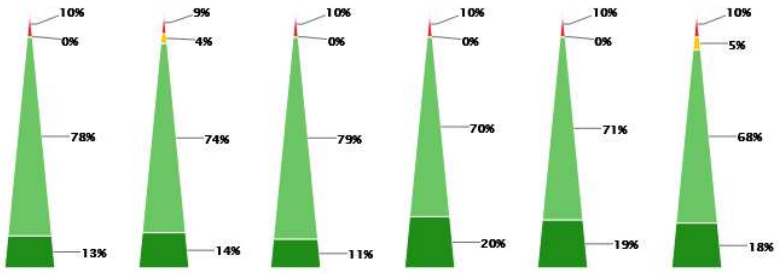
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CASEL and BIMAS-2

Second Step Program Element	Key Skill(s) Developed	CASEL Core SEL Competencies	BIMAS ITEMS
Problem Solving	• Friendship skills • Calm down before solving problems • Describe the problem • Think of many solutions • Explore the consequences of the solutions • Pick the best solution	• Relationship Skills • Responsible Decision-Making • Social Awareness	• 1. shared what he/she was thinking about. • 6. was impulsive • 7. spoke clearly with others. • 9. engaged in risk-taking behavior. • 13. fought with others (verbally, physically, or both). • 17. lied or cheated. • 24. expressed thoughts of hurting himself/herself. • 21. lost his/her temper when upset. • 25. was aggressive (threatened or bullied others). • 29. was suspected of using alcohol and/or drugs. • 31. was sent to an authority for discipline. • 32. was suspected of smoking or chewing tobacco. • 23. worked out problems with others

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The CASEL SEL view



Levels Of Risk	TOTAL BIMAS-2 SEL SCORE	Self-Awareness	Self Management	Social Awareness	Relationship Skills	Responsible Decision Making
High Risk	8 (10%)	7 (9%)	8 (10%)	8 (10%)	8 (10%)	8 (10%)
Concern	0 (0%)	3 (4%)	0 (0%)	0 (0%)	0 (0%)	4 (5%)
Typical	62 (78%)	59 (74%)	63 (79%)	56 (70%)	57 (71%)	54 (68%)
Strength	10 (13%)	11 (14%)	9 (11%)	16 (20%)	15 (19%)	14 (18%)
Total	**80 (100%)**	**80 (100%)**	**80 (100%)**	**80 (100%)**	**80 (100%)**	**80 (100%)**

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The CASEL SEL view

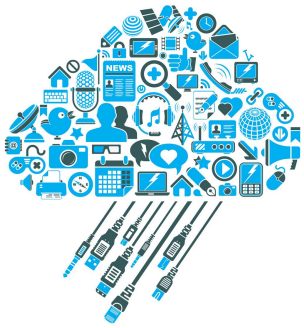
SEL CLASS/GROUP STUDENT SCORES

Student Name	Total SEL Score	Self-Awareness	Self Management	Social Awareness	Relationship Skills	Responsible Decision Making
Runte, Flossie	20	21	16	32	23	24
Torphy, Hank	20	21	22	19	23	28
McDermott, Magnolia	21	30	22	27	20	22
Kreiger, Emie	22	31	15	34	30	27
Maggio, Favian	22	26	17	34	34	25
Trantow, Korey	22	33	29	25	20	28
Gerlach, Greg	27	30	29	29	37	28
Rogahn, Freeda	27	45	35	30	19	28
Sporer, Kathervn	46	46	47	50	54	43
Labadie, Alta	47	48	50	49	49	47
Beatty, Kara	47	50	50	50	50	43
Hoggings, Roberto	47	48	51	49	49	47
Zieme, Carissa	48	45	52	49	52	50
Haag, Julia	48	50	52	50	50	47

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Administration & Scoring

COMPLETELY WEB_BASED







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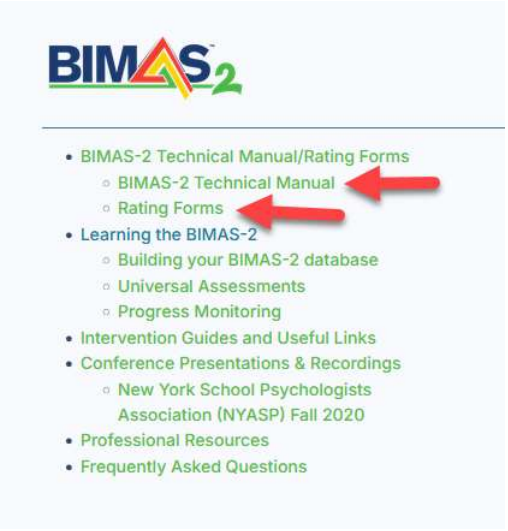
BIMAS
Technical Information

- Norms development
- Psychometric properties
  - –Reliability
  - –Validity
  - – www.edumetrisis.com/

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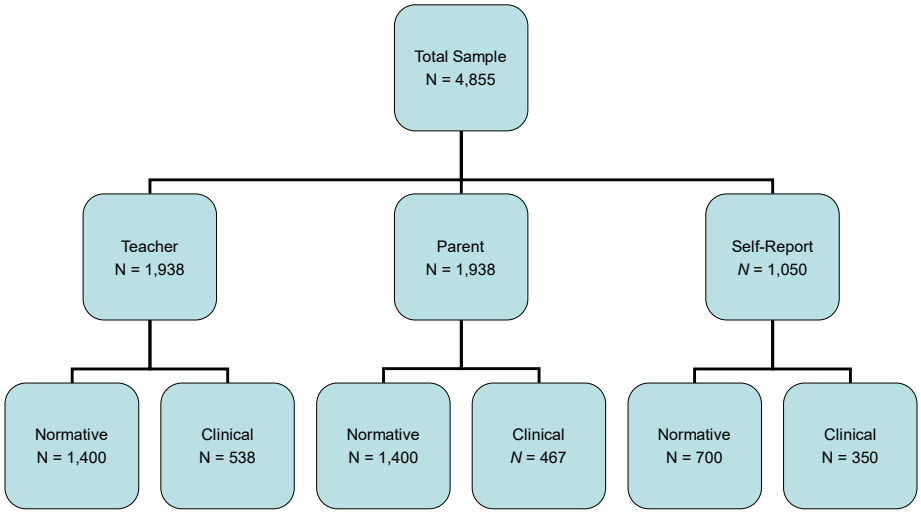
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https://edumetrisis.com/learning-center/



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Large Normative Sample



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Age x Gender Distribution: Normative Sample

Age Group	Teacher Ratings			Parent Rating			Self-Reports		
	Male (*N*)	Female(*N*)	Total (*N*)	Male (*N*)	Female(*N*)	Total (*N*)	Male (*N*)	Female(*N*)	Total (*N*)
5-6	100	100	200	100	100	200			
7-9	150	150	300	150	150	300			
10-11	100	100	200	100	100	200			
12-13	100	100	200	100	100	200	100	100	200
14-16	150	150	300	150	150	300	150	150	300
17-18	100	100	200	100	100	200	100	100	200
Total	**700**	**700**	**1400**	**700**	**700**	**1400**	**350**	**350**	**700**

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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	

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Geographic Region Distribution

- Highly comparable to the most recent U.S. Census

(Weighted *N*'s)

Form			Northeast	Midwest	South	West	Total
Teacher	Total	*N*	251	299	486	325	1361
		%	18.4	22.0	35.7	23.9	
	Census	%	18.1	21.9	36.7	23.3	
	Difference	%	0.35	0.08	-1.03	0.61	
Parent	Total	*N*	272	265	530	333	1400
		%	19.4	18.9	37.9	23.8	
	Census	%	18.1	21.9	36.7	23.3	
	Difference	%	1.39	-2.97	1.13	0.47	
Self-Report	Total	*N*	128	159	259	157	703
		%	18.3	22.6	36.8	22.4	
	Census	%	18.1	21.9	36.7	23.3	
	Difference	%	0.21	0.70	0.03	-0.93	

•48

Parental Education Level

- Highly comparable to the most recent U.S. Census (weighted N's)

Parent Education Level		High school or Lower	Apprenticeship/2-year College	University or higher	Total
Total	***N***	646	385	369	1400
.	**%**	46.2	27.5	26.4	
Census	**%**	46.6	27.2	26.2	
Difference	**%**	**- 0.43**	**0.28**	**0.16**	

•49

Psychometric Properties

- Reliability
  - Internal Consistency
  - Test-Retest (stability)
- Validity
  - Content and sources of information for decision making
  - Construct
    - Scale structure
    - Screening accuracy
    - Concurrent validity
    - Progress monitoring

50

•50

Internal Consistency
Cronbach's Alpha

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

51

•51

Validity

The validity of a test refers to the quality of inferences that can be made by the test's scores, that is, how well does the test measures and supports with empirical evidence the claims it makes for its use and applications.

==========

Why are you screening?

I am good screener and progress monitoring tool, here is the evidence for my claims….

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•52

CONTENT VALIDITY

- Behaviors included in the BIMAS Standard and BIMAS Flex
  - Meier's work presented earlier on change sensitive item selection
  - Input from colleagues in field testing studies over an 8 year period
- Structure of items into scales
  - Exploratory factor analysis
  - Rational/clinical analysis

53

•53

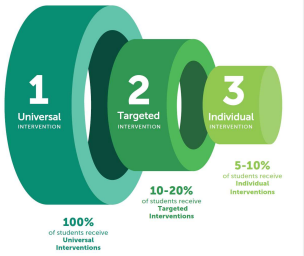
BIMAS
CLAIMS & EVIDENCE

- The BIMAS that can be used to **identify emotional and behavior** concerns of students using multiple sources of data..
- a **multi-informant screening** tool
  - Teacher
  - Parent
  - Self
- **A progress monitoring tool**

54

•54

BIMAS as a Screening Tool



- Ratings offered by parents, teachers, students (self)
- Clinical samples were identified during the standardization process.
  - Screening criteria were applied thru the use of a Clinical Diagnostic Information Form.

55

•55

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
	N	%	*N*	%	*N*	%	*N*
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

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•56

The BIMAS as a Screening Tool
How were the data analyzed?.....

- What is the % correct classification estimates for the….
  - Clinical
  - Non-clinical
  - Total sample
- Calculate other accuracy classification statistics

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•57



The Teachers as screening agents

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BIMAS–T scores for Clinical sample

BIMAS-T Standard Scales	Clinical Sample			Cohen's *d*
	N	*M*	*SD*	
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.

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•59

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%

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•60



The Parents as screening agents

•61

BIMAS–P
Clinical vs. Non-Clinical samples

BIMAS-P Standard Scales	Clinical Sample			Cohen's *d*
	N	*M*	*SD*	
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.

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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%

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•63

The Students as screening agents

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BIMAS–Self ratings
Clinical vs. Non-Clinical

BIMAS-P Standard Scales	Clinical Sample			Cohen's *d*
	N	*M*	*SD*	
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.

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•65

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%

66

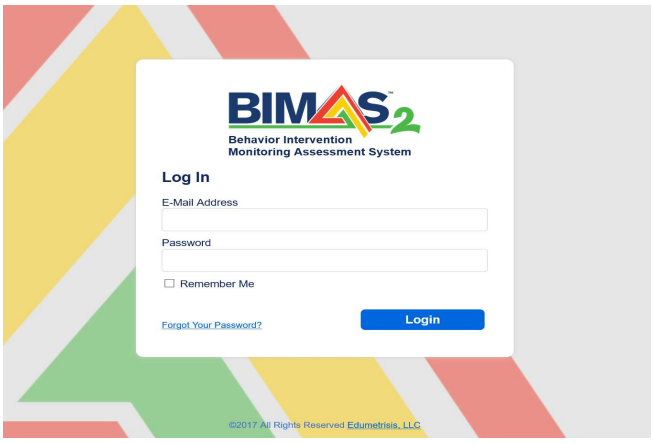
•66

Summary/Strengths of BIMAS

- BIMAS: empirically-based; sensitive to change (excellent for RtI) √
- Standard & Flex √
- Good Normative data & Good Psychometric Properties √
- Powerful Web-based Interface √
  - Web-based administration and scoring options √
  - Wide Selection of Informative Web-based Reports
- But before we close!!!!! √

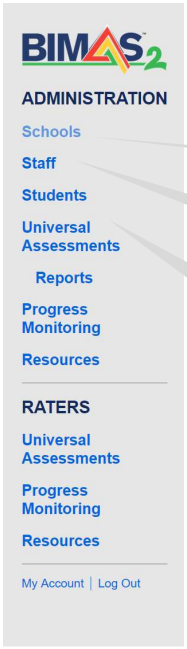
•67

The BIMAS-2 platform



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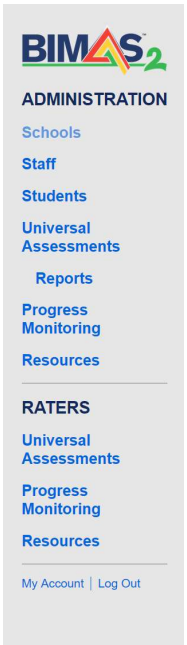
STEP 1.
Preparing the BIMAS-2 data base



1. Create the Schools
2. Build your school Staff
3. Enter your Students

•69

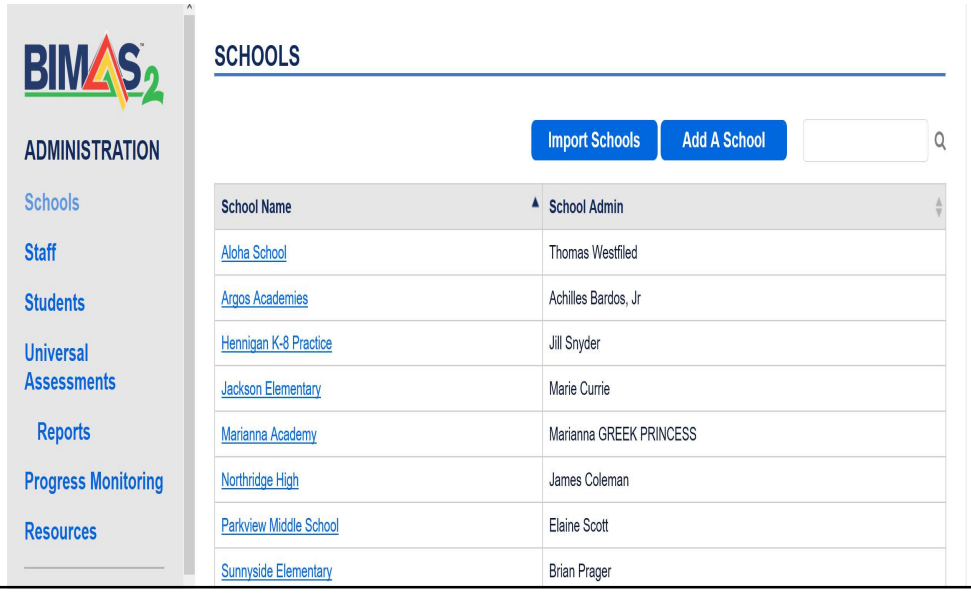
STEP 1.
Preparing the BIMAS-2 data base



- School information
- Staff information
  - School employees
  - Outside agencies
- Student records
  - Include parent info as well

•70

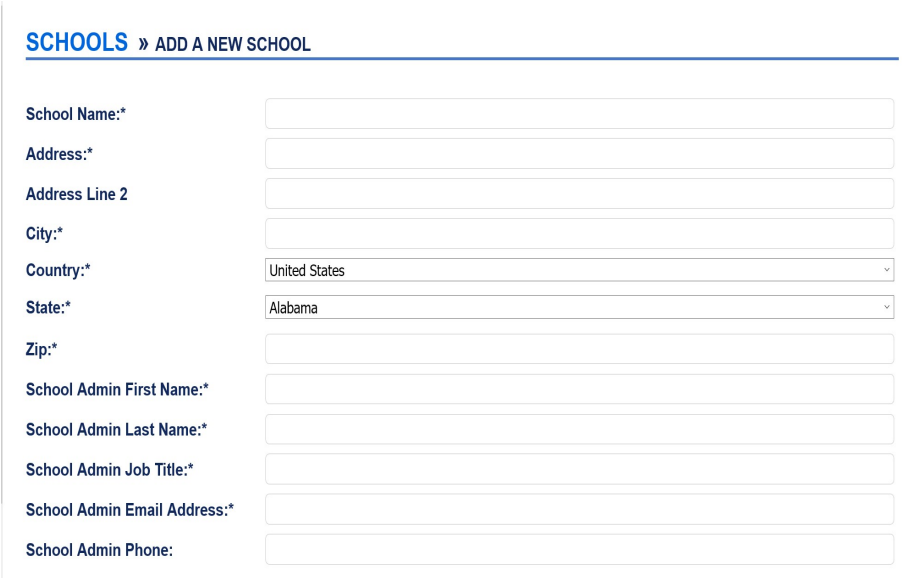
Creating the school list



71

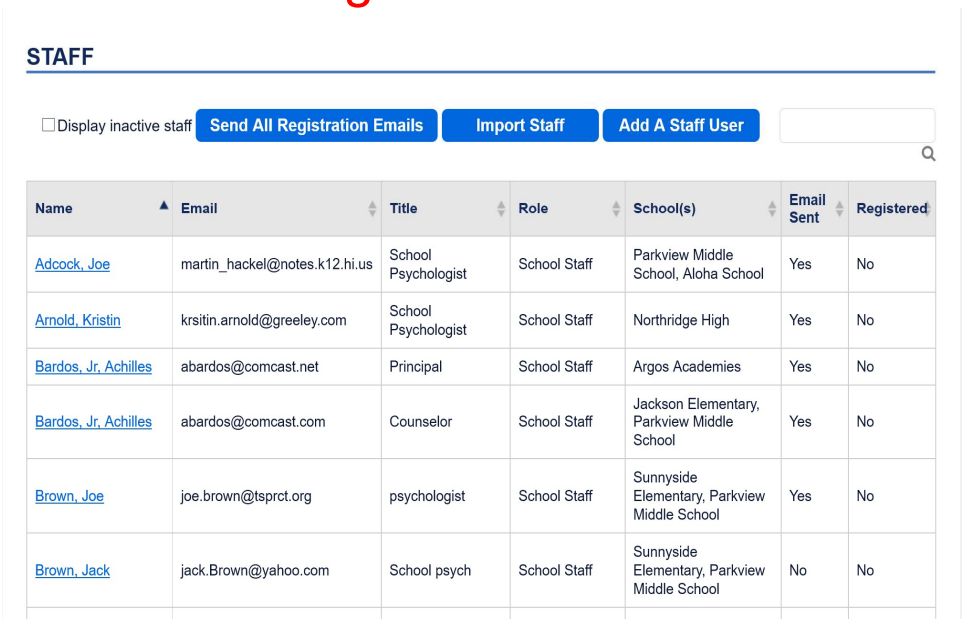
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Creating the school list



•72

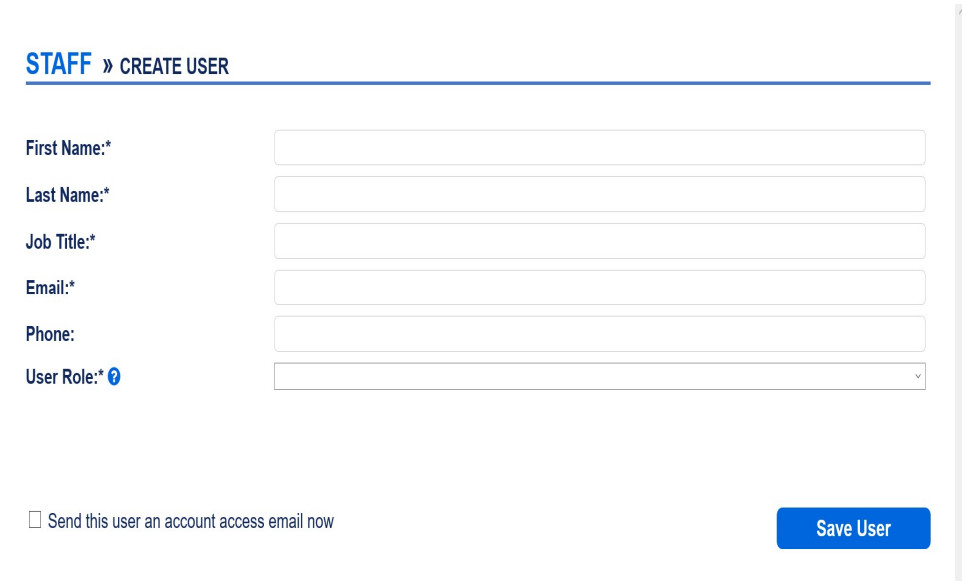
Creating the STAFF list



Name	Email	Title	Role	School(s)	Email Sent	Registered
Adcock, Joe	martin_hackel@notes.k12.hi.us	School Psychologist	School Staff	Parkview Middle School, Aloha School	Yes	No
Arnold, Kristin	krsitin.arnold@greeley.com	School Psychologist	School Staff	Northridge High	Yes	No
Bardos, Jr, Achilles	abardos@comcast.net	Principal	School Staff	Argos Academies	Yes	No
Bardos, Jr, Achilles	abardos@comcast.com	Counselor	School Staff	Jackson Elementary, Parkview Middle School	Yes	No
Brown, Joe	joe.brown@tsprct.org	psychologist	School Staff	Sunnyside Elementary, Parkview Middle School	Yes	No
Brown, Jack	jack.Brown@yahoo.com	School psych	School Staff	Sunnyside Elementary, Parkview Middle School	No	No

•73

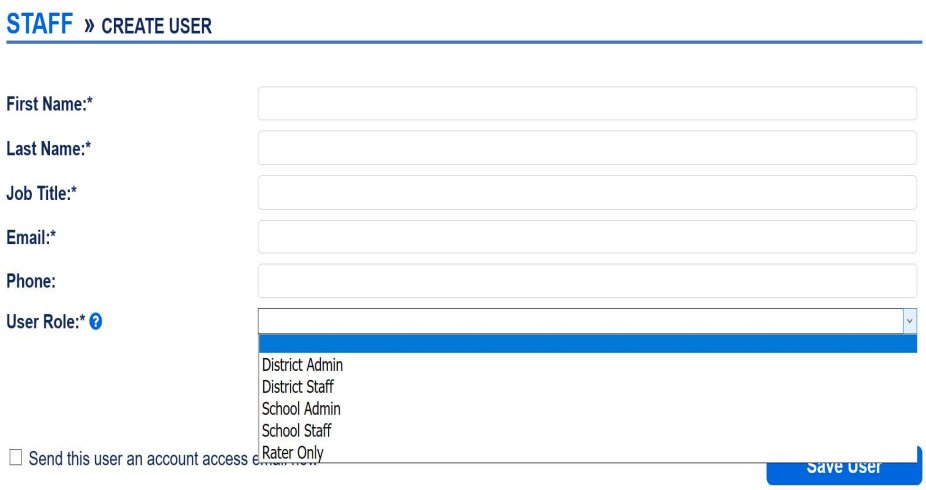
Creating the STAFF list



74

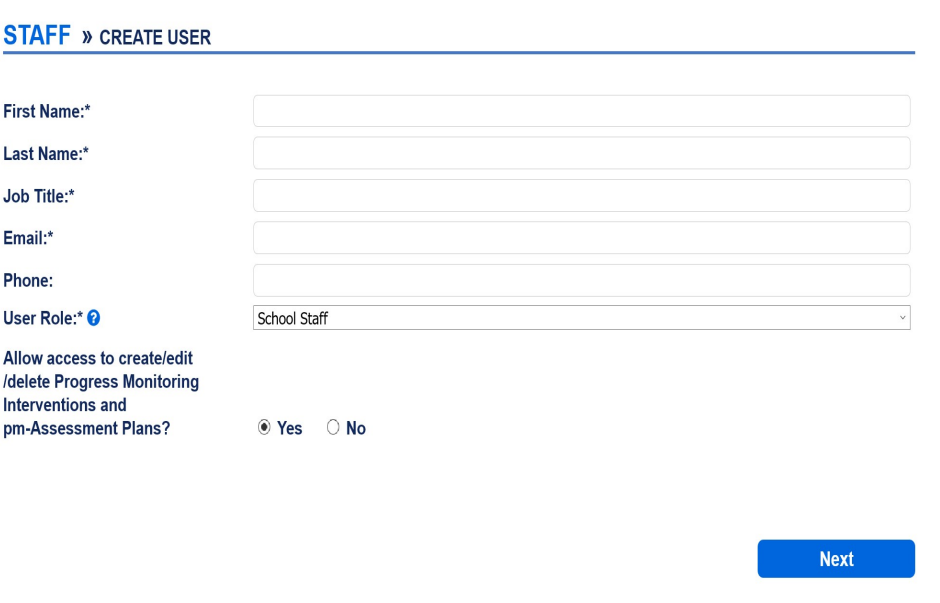
•74

Determining User Role



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Determine STAFF ACCESS levels



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USER ROLE

User Role:*

BIMAS ROLE DESCRIPTION

	Access Roles	Creating/ Editing Schools	Creating/ Editing Staff	Creating/ Editing Students	Assigning Raters to Students	Import CSV Files	Scheduling UA's	Create & Edit Progress Monitoring Plans	Reports	Complete Student Self Form	Suggest User Types for this Role
1	District Admin	Yes	Yes	Yes	Yes	Yes	Yes	Yes	All	Yes	Account Owners, Power Users
2	District Staff	Yes	Yes - but not District Level Users	Yes	Yes	No	No	Yes	All	Yes	District Level Psychologist, District Level Counselors, District Level Admins
3	School Admin	No	Yes for their schools	Yes for their schools	Yes	Yes for their schools	No	Yes for their schools	Yes for their schools	Yes	Principal, School Level Psychologists & Counselors
4	School Staff	No	No	No	Yes	No	No	Only if Checkbox on their account is clicked	Yes for their schools	Yes	School Level Assistants
5	Rater Only	No	No	No	No	No	No	No, only can be a Rater	Reports on Individual Students Pages Only	No	Teachers, Clinicians, Raters for Progress Monitoring

☐ Send this user an account access email now

Save User

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Determine STAFF ACCESS levels

STAFF » ALBERT ELLIS

ALBERT ELLIS

Job Title:
Psychologist

Email:
Albert.Ellis@example.com

Phone:

Role:
School Staff

Send Log in Link and New Temporary Password

Deactivate

Edit Info

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Determine STAFF ACCESS levels

What data do they have access to?

STAFF » UPDATE USER

SET STUDENT VIEWING ACCESS FOR: Albert Ellis

Groups of students this user always has access to:

School(s):

☐ Give access to all schools in district

☐ Aloha School ☐ Argos Academies ☐ Hennigan K-8 Practice ☐ Jackson Elementary

☐ Marianna Academy ☐ Northridge High ☑ Parkview Middle School ☑ Sunnyside Elementary

Grade(s):

☐ Select all grade levels

☐ K ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12

MTSS tier(s):

☑ Select all tiers

☑ Tier 1 ☑ Tier 2 ☑ Tier 3 ☑ Tier 4

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Determine STAFF ACCESS levels

What data do they have access to?

Additional specific students this user can access:

You have added **4** individual students

Show selected students

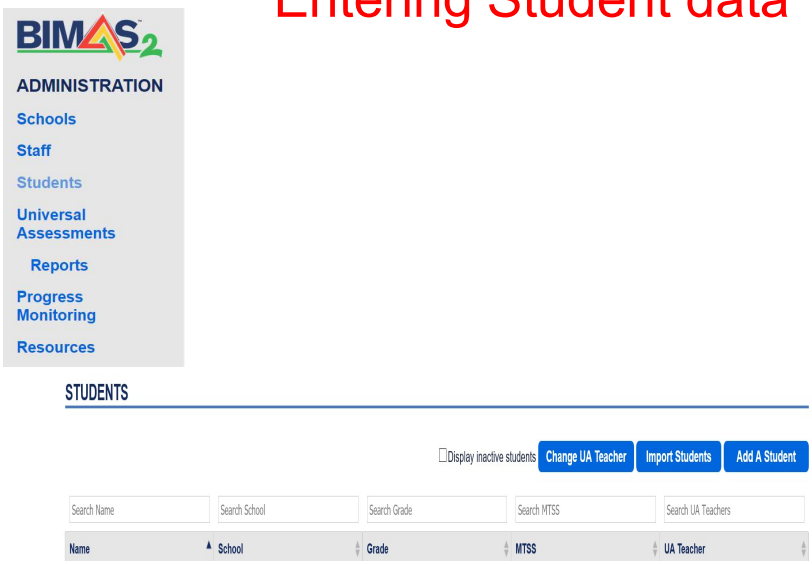
☑ Pacocha, Valentine
☑ Rolfson, Madisen
☑ Runte, Flossie
☑ Gislason, Shaina

	Search Name	Search School	Search Grade	Search MTSS	Search UA Teacher
Select...	**Name**	**School**	**Grade**	**MTSS**	**UA Teacher**
☐	Alvarez, Sally	Sunnyside Elementary	4	1	Jackson, William
☐	Anderson, Merritt	Parkview Middle School	7	2	Prager, Brian
☐	Bailey, Modesta	Sunnyside Elementary	4	1	Prager, Brian
☐	Bardos, Achilles	Sunnyside Elementary	4	2	Prager, Brian
☐	Barton, Maeve	Parkview Middle School	7	2	Jackson, William
☐	Bashirian, Sedrick	Northridge High	10	1	Grimes, Francis
☐	Beatty, Kara	Parkview Middle School	7	2	Jackson, William
☐	Bednar, Dean	Sunnyside Elementary	4	1	Grimes, Francis

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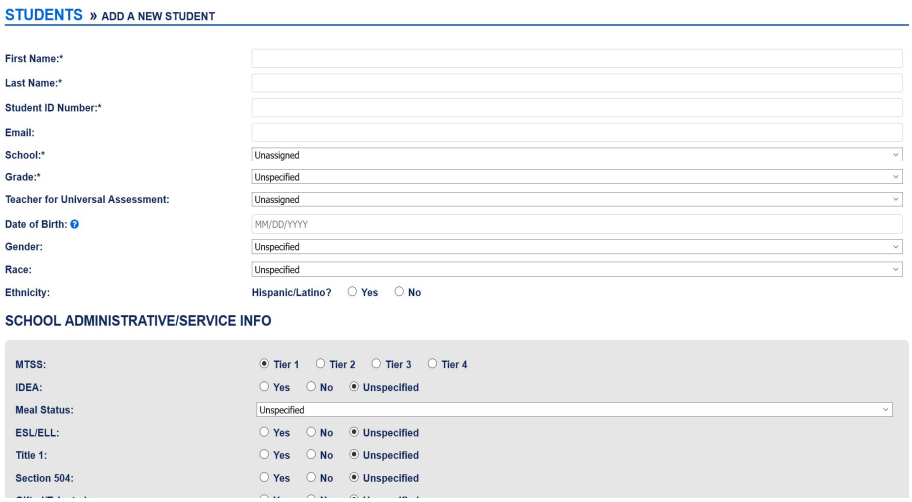
•80

Entering Student data



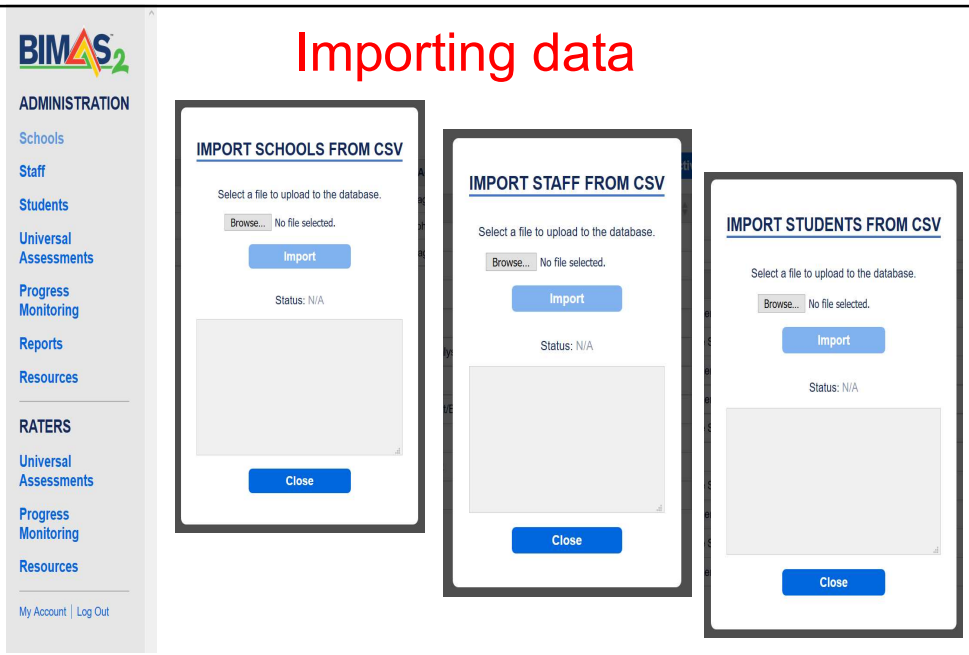
•81

Entering Student data



•82

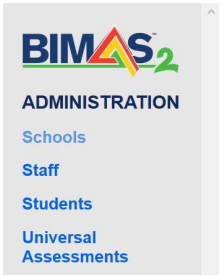
Importing data



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•83

STEP 2.
Set-up Universal Assessment testing windows



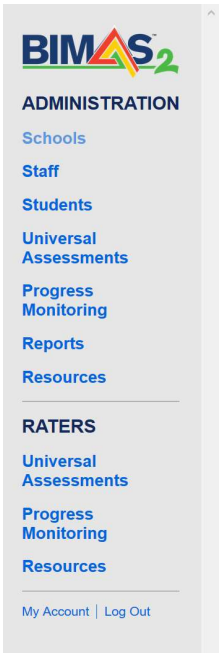
UNIVERSAL ASSESSMENT

UNIVERSAL ASSESSMENT PERIODS

Add New UA

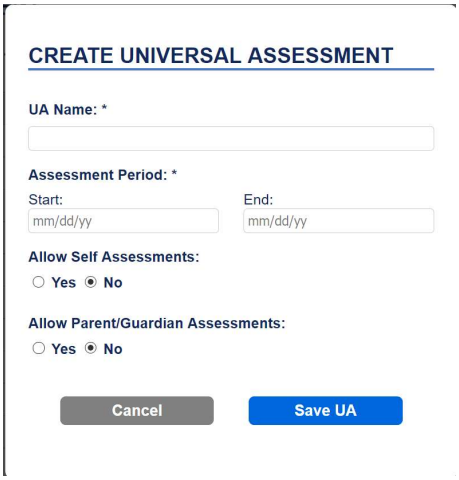
UA Name	Start	End	Self Assessments	Guardian Assessments
Spring 2018 -Toledo	03/09/18	03/16/18	Yes	Yes
Spring 2018 - Imad	03/01/18	03/06/18	Yes	Yes
spring 2018-anna;s school	02/27/18	02/28/18	Yes	Yes
Spring 2018 CO	01/16/18	02/26/18	Yes	Yes

•84



STEP 2.

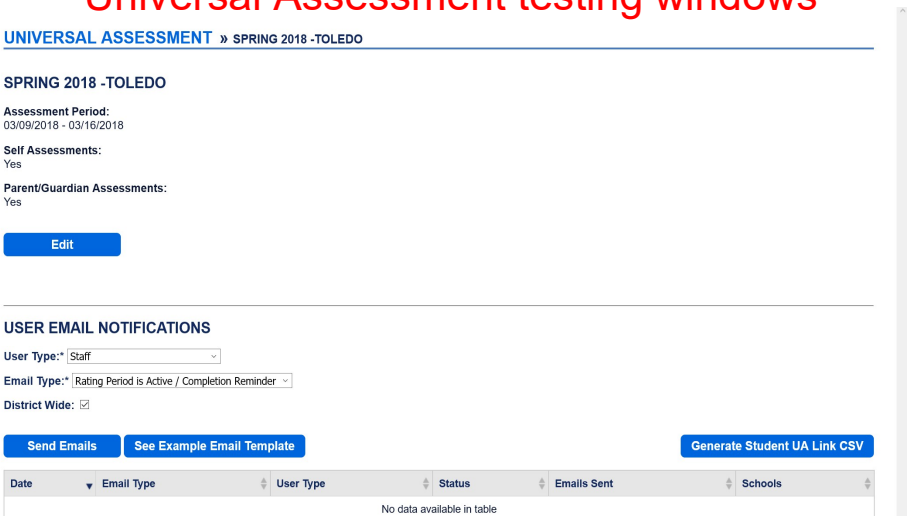
Set-up Universal Assessment testing windows



•85

STEP 2.1

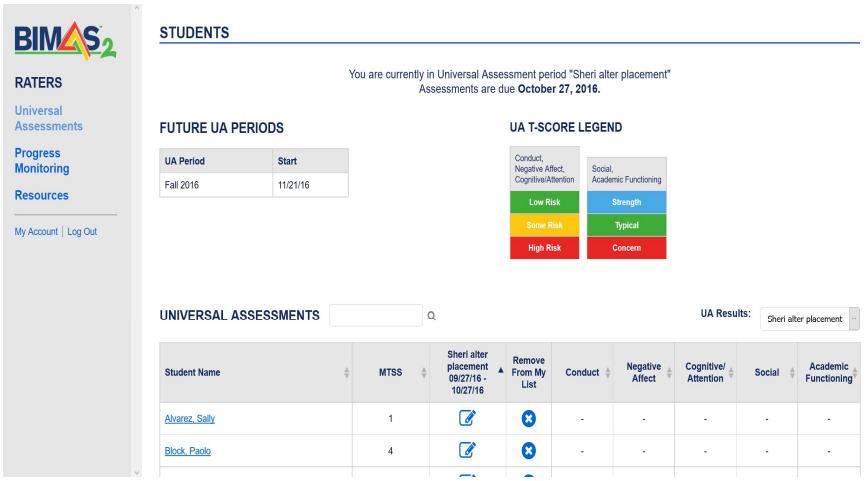
Send User Email Notifications about Universal Assessment testing windows



•86

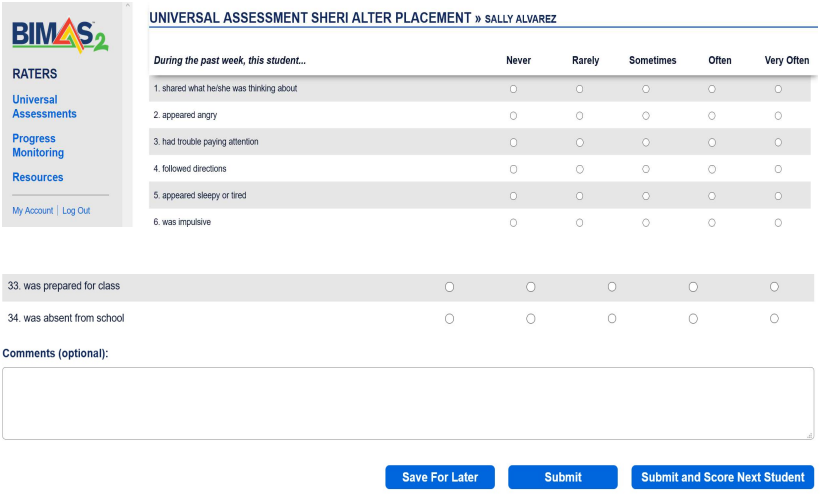
STEP 3. Let the UA begin….

A teacher receives a BIMAS-2 notification to verify class roster and/or begin rating

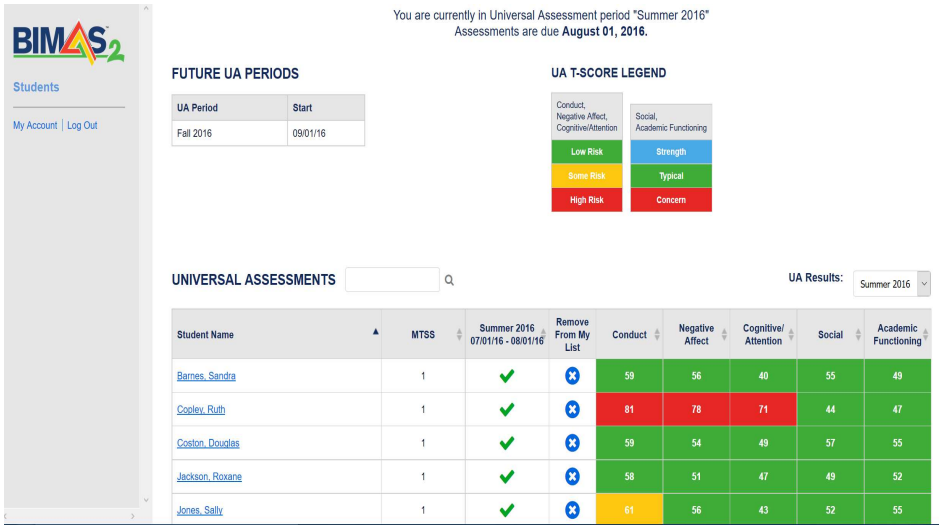


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Teachers begin the UA screening



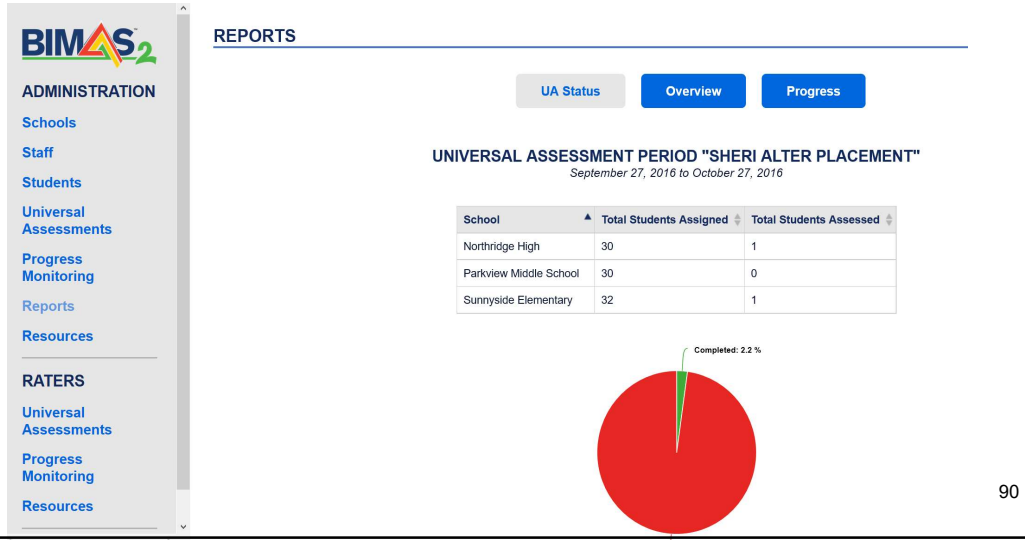
A teacher's completed Universal Assessment



•89

STEP 3. Monitoring the UA Status

- Provide support/encouragement to teaching staff
- Be creative and celebrate completion



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•90

STEP 3. Monitoring the UA Status

District person or (PBS, MTSS, RtI coordinator, etc) can check the progress of UA

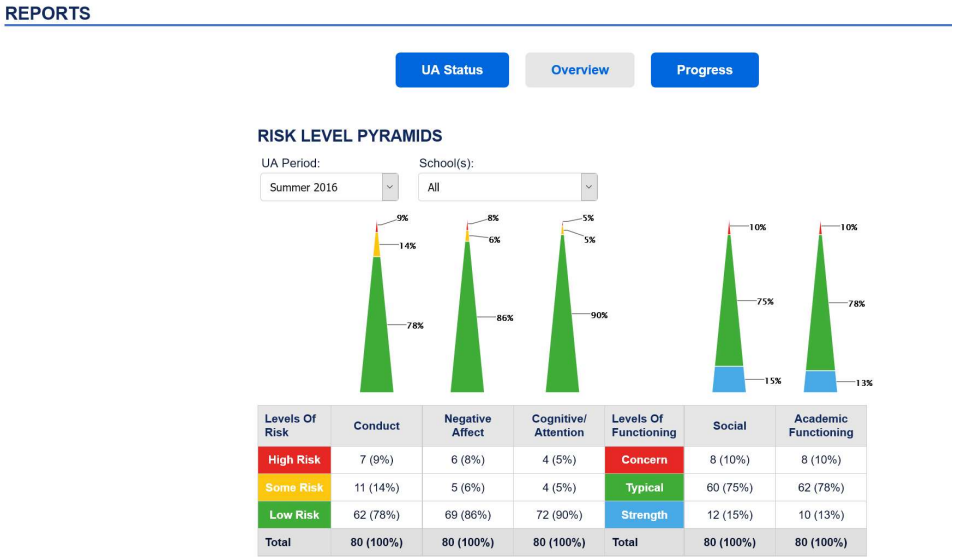
- Provide support/encouragement to teaching staff
- Be cr



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•91

STEP 4. Examining the data.



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%)

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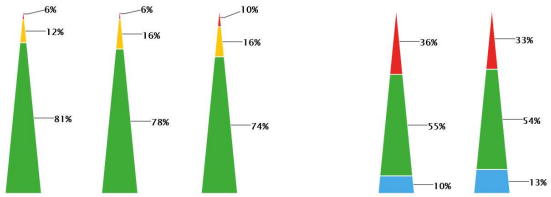
•92

Your turn!!!

EXPORT AS .PDF

RISK LEVEL PYRAMIDS

UA Period: Fall 2017 School(s): All Grade: Select Grade(s)



Levels Of Risk	Conduct	Negative Affect	Cognitive/ Attention	Levels Of Functioning	Social	Academic Functioning
High Risk	985 (6%)	939 (6%)	1621 (10%)	Concern	5822 (36%)	5366 (33%)
Some Risk	2039 (12%)	2644 (16%)	2645 (16%)	Typical	8948 (55%)	8844 (54%)
Low Risk	13299 (81%)	12740 (78%)	12057 (74%)	Strength	1553 (10%)	2113 (13%)
Total	16323 (100%)	16323 (100%)	16323 (100%)	Total	16323 (100%)	16323 (100%)

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STEP 4. Examining the data.

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

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STEP 4. Examining the data.

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	Summer 2016 07/01/16	Spring 2016 03/01/16	Winter 2015 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

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STEP 4. Examining the data.

SOCIAL⊖

Indicators	Overall	Summer 2016 07/01/16	Spring 2016 03/01/16	Winter 2015 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	

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STEP 4. Examining the data.

UA T-SCORE LEGEND

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

Press on a rating period to reveal actual scores

UNIVERSAL ASSESSMENT T-SCORE DATA - TEACHER

Scales	Summer 2016 07/01/16	Spring 2016 03/01/16	Winter 2015 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	55

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

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STEP 4. Examining the data.

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

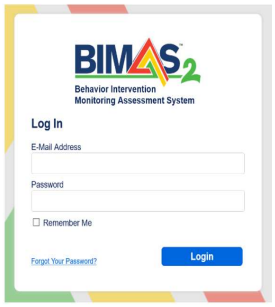
T-Score	Scale Descriptor
76	High Risk

	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

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THE BIMAS-2 platform
Building Progress Monitoring Plans
(PM_Plans)

STEPS TO FOLLOW.



Login into your BIMAS-2 account.

https://app.edumetrisis.com/ or to the server link provided

to you upon registration of your account.

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