

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

This presentation will address various parts of *Connecticut's Student Success Plan (SSP)* such as:

- the development of 21st Century Skills (*e.g.* attitudes, motivation, working with others);
- Support positive social, emotional and physical development;
- helping students become more fully engaged in the school environment; and
- the identification of students who need proactive support and intervention.

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

There are three general areas of this presentation:

Meriden's School Climate Survey for Students

- Administered in the fall (September to December)
- Published in peer reviewed journals (2014, 2015, 2016)
- Collects student perceptions such as Teachers Care, Safety, Respect, and Friends: **Sense of Belonging**

Meriden's Getting to Know You Survey

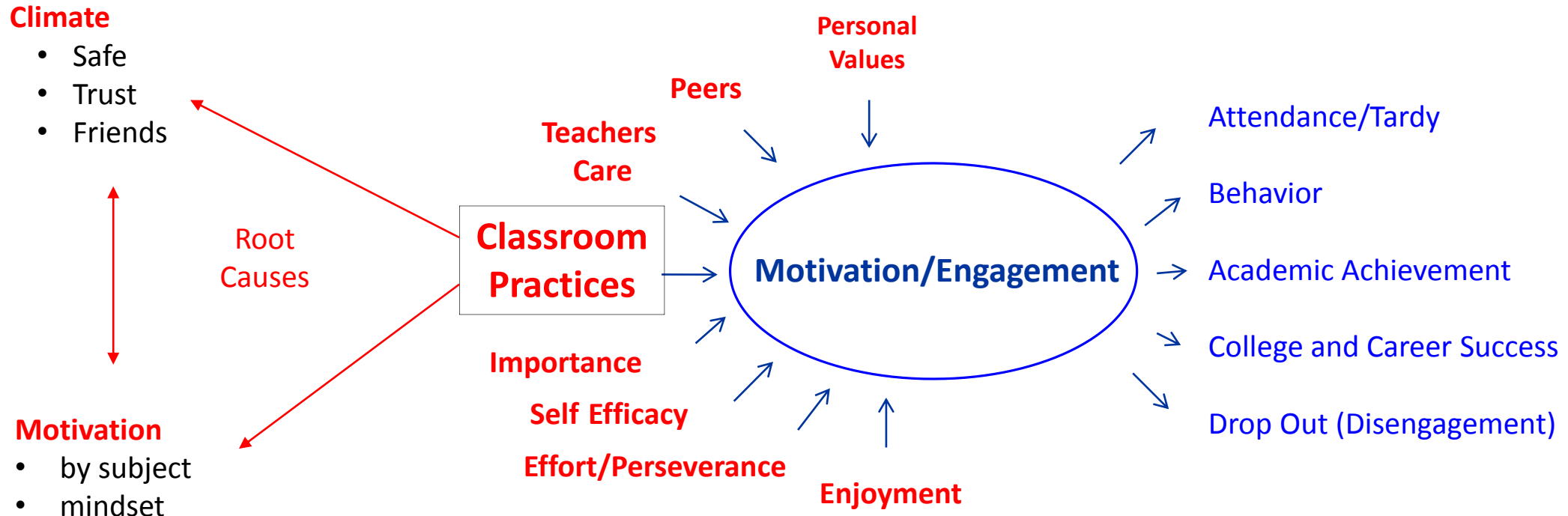
- Administered in the spring (late April to early June)
- Collects **motivation/engagement** by subject, mindsets, **college/career skills** and health/diet

Pedagogical Interventions addressing non-cognitive concepts to improve student outcomes

- Background information
- Identify and mediate barriers to improve SBAC performance
- Transitions Writing Assignment increased GPA and decreased student misbehaviors

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School and classroom practices strongly influence student self-beliefs, perceptions of climate, and student motivation/engagement.*



Expectancy-Value Theory
Self-Determination Theory
Values-Affirmation Theory

* Farrington, Camille (2014). *Failing at School*. New York: Teachers College Press.

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Meriden's School Climate Survey for Students

Each fall students in grades 3-12 take a “confidential” school climate survey. Participation rate: about 95%.

Before taking the survey, students are informed ...

“All of your answers are confidential. That means we cannot share your answers with anyone, unless you tell us about danger or someone is going to be hurt. We must keep all students safe.”

Anonymous versus confidential surveys

If a student expresses self-harm, who is it? We need proactive **actionable data**.

Validity and Reliability published in peer review journals:

School Psychology Quarterly, (Gage, et. al., 2014)

Assessment for Effective Intervention, (Gage, et. al., 2015)

American Educational Research Journal, (Gage, et. al., 2016)

Primary Purpose: **Identification and support of students in social-emotional stress (SSP)**

Annual Conference of American Educational Research Association (Larson, 2014)

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Meriden's School Climate Survey for Students: Seven Factors and a Sense of Belonging Scale

- (1) Teachers Motivate and Care (r = .90 with 11 items)
- (2) Safety (r = .73 with 7 items)
- (3) Respect Differences (r = .75 with 5 items)
- (4) Parent Values School (r = .78 with 4 items)
- (5) Home Support (r = .76 with 4 items)
- (6) Caring Friends (r = .75 with 4 items)
- (7) Student Aggression (r = .69 to .72 with 3 items)

Sense of Belonging (r = .85 with 12 items selected from Factors 1, 2, 3, and 6); items are related to:
valuing schoolwork, relationships with teachers, safety, respect, and caring friends.

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Meriden's School Climate Survey for Students: Teachers Motivate and Care items and concepts

ITEM

- There are teachers in my school that help me to really want to learn.
- There are teachers at my school who care about me.
- At my school, there is a teacher or other adult whom I can trust.
- The teachers in my school make learning fun.
- I try to do my best at school.
- I am happy to be at this school.
- My school handles student behavior problems fairly.
- The adults in my school treat students with respect.
- At my school, there is a teacher or other adult who tells me when I do a good job.
- The adults in my school treat all students fairly.
- At my school, there is a teacher or other adult who listens to me when I have something to say.

CONCEPT

- (Motivation)
- (Care)
- (Trust)
- (Enjoyment)
- (Effort)
- (Belonging)
- (Fair)
- (Respect)
- (Self-efficacy)
- (Fair)
- (Respect)

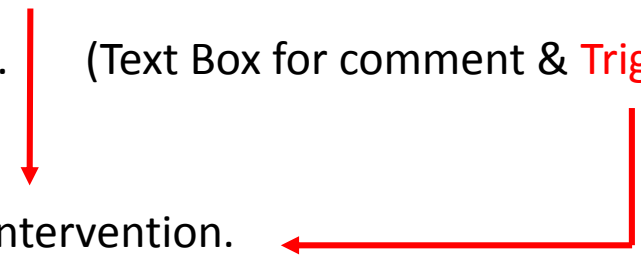
Motivation/engagement, belonging and self-efficacy are repeated concepts throughout this presentation.

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Meriden's School Climate Survey for Students: Safety items

- I feel safe on my way to and from school.
- I feel safe at school.
- I worry about people being mean to me in school.
- I feel sad in school.
- Other students in my school hurt my feelings.
- I get hit or threatened by other students. (Text Box for comment & Trigger email)
- Other students at school have spread mean rumors or lies about me. (Text Box for comment & Trigger email)

SSP: [Immediately] Identify students who need proactive support and intervention.



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Meriden's School Climate Survey for Students: Respect Differences items

- Students in my school respect differences in other students (different ...).
- A person's skin color can cause problems at my school.
- At school, the color of my skin can get me in trouble.
- There are racial tensions in this school.
- Students being mean to other students (harassment) is a problem in my school.
- There is physical fighting between students at my school.

SSP: Ability to work effectively with diverse teams/cultures

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Meriden's School Climate Survey for Students: Parent Values School items

- At home, I have a parent or other adult who expects me to follow school rules.
- At home, I have a parent or other adult who always wants me to do my best.
- At home, I have a parent or other adult who cares about my school work.
- In the future, I feel I will be successful in life.

Meriden's School Climate Survey for Students: Home Support items

- At home, I have a quiet place to do my homework.
- At home, I have a parent or other adult who listens to me when I have something to say.
- At home, if I need help with homework, a parent or adult will help me.
- At home, I have time to do my homework.

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Meriden's School Climate Survey for Students: Caring Friends items

- When I have a problem, I find someone to talk with.
- At my school, I have a friend who I can really trust. (administrator request: **trigger email**)
- I have a friend about my own age who talks with me about my problems.
- I have a friend about my own age that really cares about me.

Meriden's School Climate Survey for Students: Student Aggression

- During the past few months, I have hit or pushed other students at school in anger.
- During the past few months, I have spread mean rumors or lies about other students.
- During the past few months, I have hit, pushed or spread mean rumors at the bus stop or on the bus.

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Meriden's School Climate Survey for Students: Sense of Belonging

Items relate to: valuing schoolwork, relationships with teachers, safety, respect and caring friends

- I try to do my best at school. (Value school work)
- There are teachers at my school who care about me. (Teachers Care)
- At my school, there is a teacher or other adult whom I can trust. (Teachers Care)
- I am happy to be at this school. (Teachers Care)
- I feel safe at school. (Safety)
- Students in my school respect differences in other students ... (Respect Differences)
- Other students in this school are polite and listen to what I say. (Respect Differences)
- I try to understand how other students feel. (Respect Differences)
- In class, I try to understand other students who disagree with me. (Respect Differences)
- At my school, I have a friend who I can really trust. (Friends)
- When I have a problem, I find someone to talk with. (Friends)
- I have a friend about my own age that really cares about me. (Friends)

Sense of Belonging has been associated with academics, behavior, attendance and school completion. It is one of the primary measures how much each student is **engaged in the school environment** (SSP).

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Meriden's School Climate Survey for Students:

SSP: Identify students who need proactive support and intervention.

We cannot improve at scale what we cannot measure (Bryk. *et.al.* 2015).

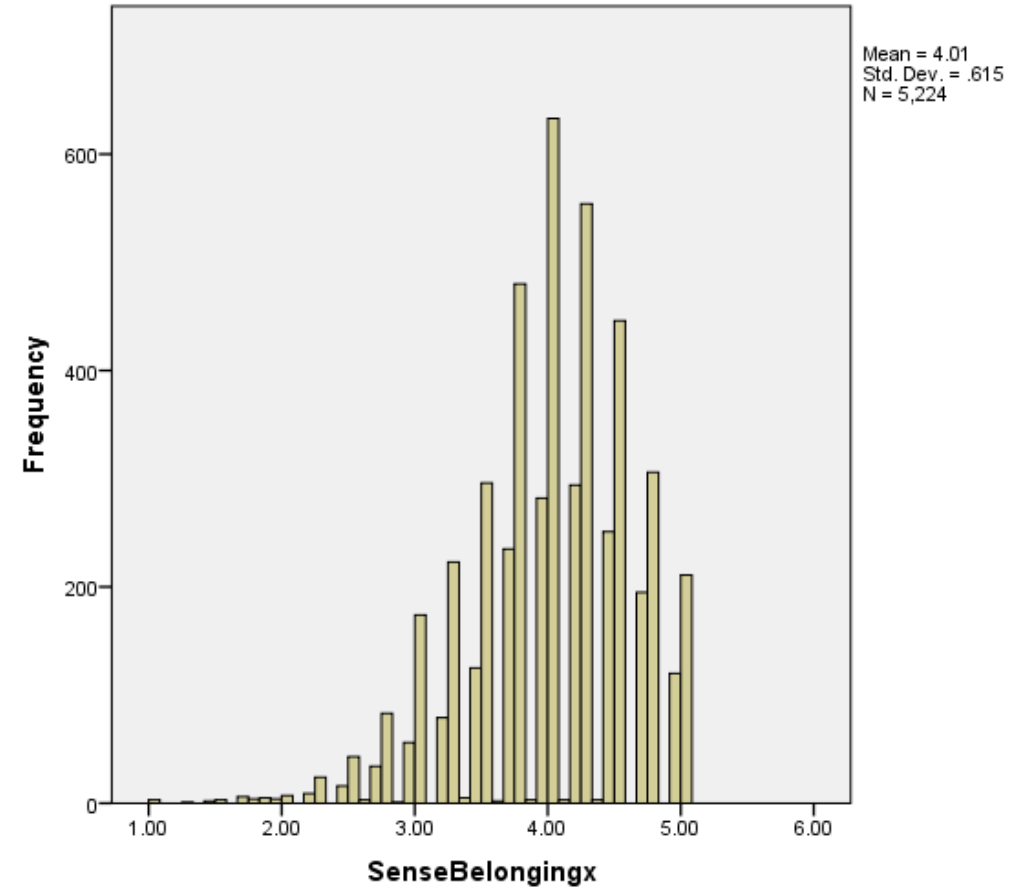
Who are the at-risk, fragile, disengaging students? ...

Students below 3.2 on scale.

Internationally (PISA) estimates that 25% of all students have a “low” sense of belonging.

Since this is a confidential survey ...
we know which students are at-risk.

There are research-based interventions designed to address a student's Sense of Belonging.



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Meriden's School Climate Survey for Students: Identify students who need proactive support and intervention (SSP)

AERA 2014 Annual Meeting

Students in Social-Emotional Crisis

Trigger emails produce actionable data

Trigger E-Mails					
	Never	Rarely	Sometimes	Very Often	Always
34. I get hit or threatened ...	1	2	3	4	5
OR					
35. ... mean rumors ... about me	1	2	3	4	5

Would you like to tell us about it?

When a student responds with a "4" or "5" on either of these two items, a trigger e-mail* is immediately sent to:

- School Psychologists
- School Social Workers
- School Administrators
- Office of Research and Evaluation

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Meriden's School Climate Survey for Students: Identify students who need proactive support and intervention (SSP)

The following student quotes are samples of student “**trigger e-mails**”. These trigger emails deal with suicide, harm, threats, relational and racial issues. The underlined segments, added by the presenter, align with national qualitative research findings.

Case 1	
Hispanic, male, grade 7, Free Lunch, not special education, not ELL, Language exposed to Spanish but English Dominant, Basic Math, Basic Reading	there are some people who call me names and ... people start <u>rumors about me</u> that i dont like sometimes i want to <u>die and kill myself</u> before the next day. i feel like everyone hates me and for no reason. ive sometimes been nice but <u>when they bring up the rumor i say realy bad things to keep them away</u> ... one day i was thrown a note saying im ###. and it was my by bestfriend ... <u>i lost the only thing that i can trust.</u> i was alone for a long time. if this is un healthy then <u>pleace help me</u> ...
Case 2	
White, male, grade 5, Pay Lunch, not special education, not ELL, Language is English, Goal Math, Proficient Reading.	At school some people dont like me so they bully me and pick on me. I feel horrible and I feel like <u>I want to stay at home doing nothing than get bullied at school.</u>

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Meriden's School Climate Survey for Students: Identify students who need proactive support and intervention (SSP)

AERA 2014 Annual Meeting

FIGURE 7							
Social-Emotional Profile: Kara (Grade 8)							
Climate Survey Date	Factor Names and Factor-Based Scores						
	(1) Teachers Motivate and Care	(2) Mean to Me (Safety)	(3) Respect Differences	(4) Parents Value School	(5) Parental Support	(6) Friends	(7) Aggression Towards Others
Avg Factor Scores	SF1	SF2	SF3	SF4	SF5	SF6	SF7
Student Survey Fall 2013	1.36	1.00	1.50	3.25	2.75	1.00	4.33
Student Survey Spring 2013	3.00	1.40	1.00	2.25	1.00	4.40	5.00
Student Survey Fall 2012	2.55	2.71	1.83	4.00	4.75	2.33	5.00
Student Survey Spring 2012	3.08	3.57	3.33	1.60	1.50	3.12	3.33
<p>Partial Diagnosis:</p> <p>Factor 1 (SF1) <u>Teachers Motivate and Care</u> was very low in fall 2013 (1.36), much lower than previous surveys, so Kara thinks teachers no longer care about her.</p> <p>Factor 2 (SF2) <u>Safety</u> has decreased since spring 2012 (3.57) to the lowest score of (1.00) in fall 2013. Kara feels threatened by other students, who spread mean rumors about her; she does not feel safe and is sad in school.</p> <p>Factor 6 (SF6) <u>Friends</u> Kara also feels she has lost friends since spring 2013 (4.40) to the lowest possible score in fall 2013 (1.00)</p>							

Designed for School Psychologists and Social Workers

Performance Matters Forum 2018:

How Districts Can Use Non-Cognitive Measures to Improve Student Outcomes

Meriden's School Climate Survey for Students: Identify students who need proactive support and intervention

Student ID and Name **The following student has completed the Student Survey Fall 2017 and triggered an automatic notification.**

Factors:

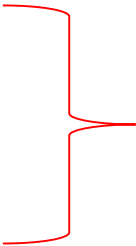
Student has a critically low average factor score (2.0 or lower) for the following factor(s):

Factor	Avg. Score
SF7: Aggression Towards Others	1.67

Sent to:
School Psychologists,
Social Workers, Administrators,
Research Department and
Notifications

Student has a critically low average factor score (2.0 or lower) for the following factor(s):

Factor	Avg. Score
SF1: Teachers Motivate and Care	1.55
SF4: Parent Values School	2.00
SF5: Home Support	1.00
SF6: Caring Friends	1.67



High at-risk student profile:
changes in these factors are
a potential school threat.

Performance Matters Forum 2018:

How Districts Can Use Non-Cognitive Measures to Improve Student Outcomes

Meriden's School Climate Survey for Students: Identify students who need proactive support and intervention

Student ID and Name

The following student has completed the Student Survey Fall 2017 and triggered an automatic notification.

Factors:

Student has a critically low average factor score (2.0 or lower) for the following factor(s):

Factor	Avg. Score
SF1: Teachers Motivate and Care	1.91

Sent to:
School Psychologists,
Social Workers, Administrators,
Research Department and
Notifications

Student has a critically low average factor score (2.0 or lower) for the following factor(s):

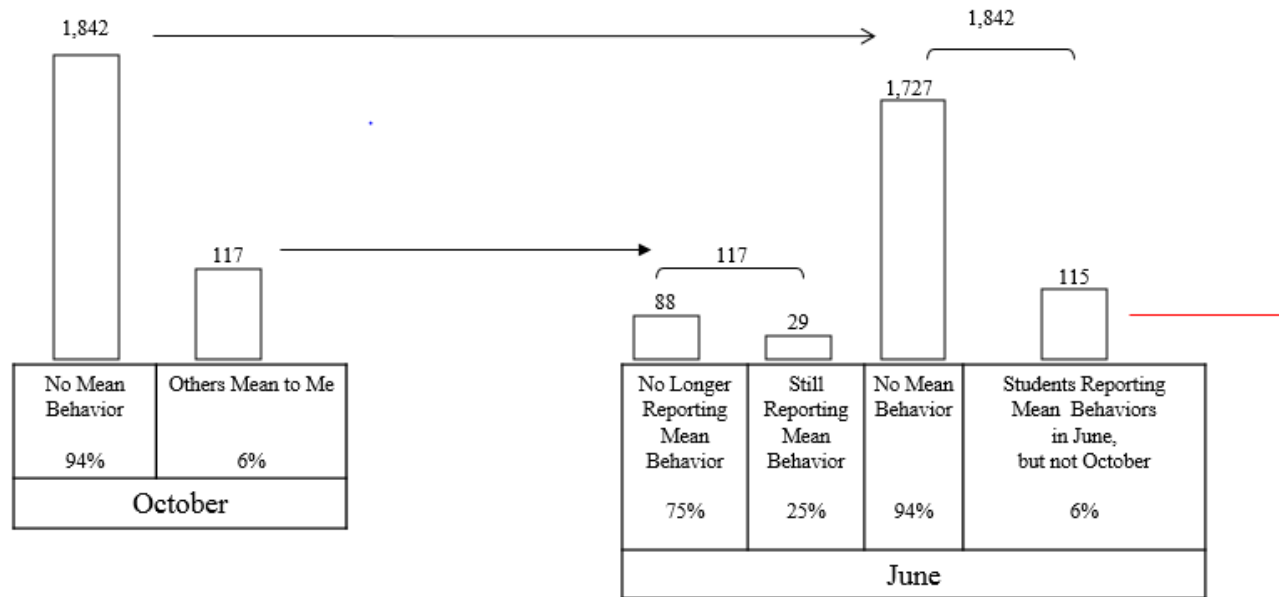
Factor	Avg. Score
SF5: Home Support	1.75
SF6: Caring Friends	1.83

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Meriden's School Climate Survey for Students: Changes in School Threats Fall to Spring

Matched Scores on Factor 2 "Safety" (hits/threats or mean rumors)
October to June

- Of the 1,959 students who took both climate surveys:



New student application: "Meriden Cares" open all year ...

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Meriden Cares



MERIDEN  *Cares*
PUBLIC SCHOOLS
PRIDE IN ALL WE DO

*Sometimes you just need
to talk to someone....*

Is something bothering you?
...want to tell someone?

Help is Here

<http://mpscares.meriden.k12.ct.us>
Someone will reach out to you soon!

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Examples of MPS Cares Student Entries

Question Responses:

Problem with friends:	No
People are mean:	No
Other problem:	Yes

Sent to:
School Psychologists,
Social Workers, Administrators,
Research Department and
Notifications

Comments:

im Sacred I dont want to be in school because of the shoot my parents dont know I fell really mad and sad because if they did know they didn't tell me and i feel scraed for my borther and sisters that are at school .

Question Responses:

Problem with friends:	Yes
People are mean:	Yes
Other problem:	No

Comments:

So ____ are bully me they keep saying i gay and being mean to me i keep trying to tell them that it is bulling but the wont lisen and keep doing it sometime it is pyisical and the would push me around and one time i pushed me into a brick wall so thank you for reading this and you concern i dont feel safe at school because of them

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Examples of MPS Cares Student Entries

Question Reponses:

Problem with friends:	No
People are mean:	No
Other problem:	Yes

Comments:

People at lunch are bring very rude to K__. They constantly call him names as well as making him mad . When he gets mad, they complain because we know he gets a little extra when he is mad. They sometimes even complain to Mr. B__ about it, even though it wouldn't have happened if they weren't bothering him. This is not about us, but it is more of concern for another student.

Question Reponses:

Problem with friends:	Yes
People are mean:	Yes
Other problem:	Yes

Comments:

Bus #40 they're trying to jump me today

Sent to:
School Psychologists,
Social Workers, Administrators,
Research Department and
Notifications

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Meriden's School Climate Survey for Students: Summary

Help students remain more fully engaged in school and identify students who need proactive support and intervention:

- Seven Factor scales and a **Sense of Belonging** scale;
- Trigger email (threats, hitting, mean rumors and no friends);
- Low Factor score emails;
- MPS Cares emails;
- Notifications safety net; and
- Provide measures to evaluate pedagogical interventions.

However, just a proactive and confidential survey alone is insufficient to prevent student disengagement from school.

- Besides an adequate level of Sense of Belonging, each student also needs to be actively **engaged** in at least one school subject or activity that is **meaningful and relevant** to that student.

Motivation/engagement is measured by Meriden's Getting to Know Your Survey.

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Meriden's Getting to Know You Survey (GTKY)

It is getting near the end of the school year ... students in grades 3 to 11 are told:

Today I want you to think about next school year and your new teachers. Your new teachers want to know about you. Meriden's Getting to Know You survey allows you to tell them what you like, and what you don't like, as well as your interests, and something about you. This will help get next year off to a great start! This survey is important. Tell your next year's teachers about you."

Participation rate: about 95%

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Meriden's Getting to Know You Survey (GTKY)

The GTKY Survey first asks ...

about each student's interests (questions 1 to 15), and then

Using a 1-5 Likert Scale, the survey questions shift to ...

motivation/engagement by each subject area, mindsets, college/career skills (questions 16 to 79) and their plans after high school (text box).

The primary objectives of GYKY are:

1. Provide student interest information to help teachers develop positive **teacher-student** relationships;
2. **Identify disengaging students** by subject area prior to the beginning of the school year; and
3. Produce **diagnostic**, student engagement data to **promote discussions about classroom practices** and guide **intervention** (actionable data).

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Meriden's Getting to Know You Survey (GTKY)

Meriden's motivation/engagement is a practical application of multiple theories and studies.*

There are five aspects of Meriden's motivation/engagement, all of which are **diagnostic and malleable**:

1. Importance or meaningfulness of each subject to the student
 - The subject and classroom activities need to be **personally meaningful and relevant** to each student
2. Perceived self-efficacy of the subject by each student;
 - Strongly influenced by **school/classroom practices** (grading practice, cooperative and **supportive learning communities**, trusting/caring relationships)
3. Effort each student decides to expend on each learning/testing task;
4. Each student's personal interest or enjoyment during each learning/testing task; and
5. Perseverance to reach a successful completion of each learning/testing task.

* Wigfield and Eccles, 2000; Ryan & Deci, 2000; Skinner, Wellborn & Connell, 1990; Legault, et al, 2006; Fryer, 2013; Dweck, 2008; Farrington, 2012, 2014; Marsh, 1990.

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Meriden's Getting to Know You Survey (GTKY)

What is **motivation/engagement** for each subject and how are they measured?

<u>Weighted Scale Name</u>	<u>Number of Items</u>	<u>Cronbach Alpha</u>
Math Motivation	6	.79
Reading Motivation	6	.76
Writing Motivation	6	.76
Social Studies Motivation	6	.75
Science Motivation	6	.75
Music Motivation	6	.73
Art Motivation	4	.84
Physical Education	8	.81
Health Diet	11	.72

We cannot improve at scale what we cannot measure (Bryk. *et.al.* 2015).

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Meriden's Getting to Know You Survey (GTKY): What is motivation/engagement in **Math** and how is it measured?

GTKY: Math Motivation/engagement

- It is important for me to do well in math.
- I am really good in math.
- Last year, how hard did you work in math class?
- Last year, how much did you like math class?

Aspect

Importance/meaningful
Self-efficacy
Effort (SDR)*
Enjoyment, and
Two perseverance items **

* SDR = Socially Desirable Response

** (1) Even with a difficult task, I keep trying and don't give up.

** (2) If something is important to me, I'll keep working to get it, no matter how hard it may be.

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Meriden's Getting to Know You Survey (GTKY): What is motivation/engagement in **Reading** and how is it measured?

GTKY: Reading Motivation/engagement

- For me, it is important to be able to read well.
- I am a very good reader.
- Last year, how carefully and thoughtfully did you read your assigned reading in Language Arts (ILA) class?
- Last year, how much did you like Language Arts (ILA) reading class?

Aspect

Importance/meaningful
Self-efficacy

Effort (SDR)*

Enjoyment, and
Two perseverance items **

* SDR = Socially Desirable Response

** (1) Even with a difficult task, I keep trying and don't give up.

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Meriden's Getting to Know You Survey (GTKY): What is motivation/engagement in **Writing** and how is it measured?

GTKY: Writing Motivation/engagement

- For me, it is important to be able to write well.
- I am a really good writer.
- Last year, how carefully and thoughtfully did you write your assigned writing tasks in Language Arts (ILA) class?
- Last year, how much did you like Language Arts (ILA) writing class?

Aspect

Importance/meaningful
Self-efficacy

Effort (SDR)*

Enjoyment, and
Two perseverance items **

* SDR = Socially Desirable Response

** (1) Even with a difficult task, I keep trying and don't give up.

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Meriden's Getting to Know You Survey (GTKY): What is motivation/engagement in **Social Studies** and how is it measured?

GTKY: Social Studies Motivation/engagement

- It is important that I know about social studies and history.
- I am really good at history or social sciences.
- Last year, how hard did you work in social studies class?
- Last year, how much did you like social studies class?

Aspect

Importance/meaningful

Self-efficacy

Effort (SDR)*

Enjoyment, and

Two perseverance items **

* SDR = Socially Desirable Response

** (1) Even with a difficult task, I keep trying and don't give up.

** (2) If something is important to me, I'll keep working to get it, no matter how hard it may be.

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Meriden's Getting to Know You Survey (GTKY): What is motivation/engagement in **Science** and how is it measured?

GTKY: Science Motivation/engagement

- It is important that I know about science.
- I am really good in science.
- Last year, how hard did you work in science class?
- Last year, how much did you like science class?

Aspect

Importance/meaningful
Self-efficacy
Effort (SDR)*
Enjoyment, and
Two perseverance items **

* SDR = Socially Desirable Response

** (1) Even with a difficult task, I keep trying and don't give up.

** (2) If something is important to me, I'll keep working to get it, no matter how hard it may be.

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Meriden's Getting to Know You Survey (GTKY): What is motivation/engagement in **Art** and how is it measured?

GTKY: Art Motivation/engagement

- For me, it is important that I know about some form of art.
- It is important to be really good in some form of art.
- I am interested in learning more about the visual arts (drawing, painting, sculpture, photography).
- Last year, how much did you like art class?

Aspect

Importance/meaningful
Self-efficacy

Importance/meaningful
Enjoyment

There is no perceived “effort” or “perseverance” in art.

Is it because art is **personally meaningful and intrinsically enjoyable**?

SSP: the attitudes needed to be an effective learner ... in all subjects.

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Meriden's Getting to Know You Survey (GTKY): What is motivation/engagement in **Music** and how is it measured?

GTKY: Music Motivation/engagement

- It is important to know about different types of music.
- For me, it is important to play a musical instrument or sing well.
- Last year, how hard did you work in music class?
- Last year, how much did you like music class?

Aspect

Importance/meaningful
Self-efficacy
Effort (SDR)*
Enjoyment, and
Two perseverance items **

* SDR = Socially Desirable Response

** (1) Even with a difficult task, I keep trying and don't give up.

** (2) If something is important to me, I'll keep working to get it, no matter how hard it may be.

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Meriden's Getting to Know You Survey (GTKY): What is motivation/engagement in **Physical Education** and how is it measured?

GTKY: Physical Education Motivation/engagement

- Last year, how much did you like physical education (gym) class?
- Last year how hard did you work in physical education (gym) class?
- I am physically fit.
- It is important to exercise on a regular basis.
- I am good at physical education (gym) activities.
- Usually, I am physically active (run, swim, exercise, play sports) for 30 minutes or more.

Aspect

Enjoyment

Effort

Self-efficacy

Importance/meaningful

Self-efficacy

Importance, and

Two perseverance items **

SSP: fostering student development of positive physical activity and healthy diet.

* SDR = Socially Desirable Response

** (1) Even with a difficult task, I keep trying and don't give up.

** (2) If something is important to me, I'll keep working to get it, no matter how hard it may be.

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Meriden's Getting to Know You Survey (GTKY): How **Healthy Diet** is measured (still evolving)?

GTKY: Healthy Diet

- | | |
|--------------|--|
| Healthy | <ul style="list-style-type: none">• For me, it is important to eat a healthy diet.• I usually drink 3 or more bottles/glasses (36 ounces or more) of unflavored water.• I usually eat breakfast.• I usually eat fruits and/or vegetables. |
| Less Healthy | <ul style="list-style-type: none">• I usually drink 3 or more bottles/glasses (36 ounces or more) of some type of soda or sweetened drink (Coke, Pepsi, Sprite, Gatorade, lemonade, sweet iced tea).• I usually eat sweets such as cake, donuts, candy, cookies or brownies.• I usually eat foods like French Fries, hamburgers, chicken nuggets or fried chicken. |
| P. E. | <ul style="list-style-type: none">• I am physically fit• It is important to exercise on a regular basis; and |
| Perseverance | <ul style="list-style-type: none">• Even with a difficult task, I keep trying and don't give up.• If something is important to me, I'll keep working to get it, no matter how hard it may be. |

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Meriden's Getting to Know You Survey (GTKY): What is **Growth Mindset** (Dweck, 2006) and how is it measured?

GTKY: Growth Mindset

- If a person works harder, he/she can do better.
- A person can change if they really want to and they work hard.
- Getting something wrong makes me want to understand why and do better next time.
- I am determined to learn even the most difficult school work.
- I want to do better in school than I did last year.
- When class work gets hard, I just work harder.
- It's okay to make mistakes in class, as long as you're learning.
- I like to learn new things.
- Even with a difficult task, I keep trying and don't give up.
- If something is important to me, I'll keep working to get it, no matter how hard it may be.

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Meriden's Getting to Know You Survey (GTKY): What is **Fixed Mindset** (Dweck, 2006) and how is it measured?

GTKY: Fixed Mindset (revised for school environment)

- I give up when school work starts getting too difficult.
- If I'm not good at something, I stop trying.
- Last year, homework was either just too hard or I didn't have time to do it.
- I do as little studying as possible, extra studying is not worth it.
- It doesn't matter how hard you work in school, it has a lot to do with luck.

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Meriden's Getting to Know You Survey (GTKY): What is **College and Career Skills** and how is it measured?

Self Determination Theory: intrinsic motivation and the development of autonomy, competence, and relatedness, (UCONN).

Item

Concept

I go to school because ...

- I find what we study at school interesting.
- Learning new things gives me a sense of satisfaction.
- I get a satisfied feeling in finding out about new things.
- I enjoy learning about my favorite subjects.

Intrinsic (4 items)

- I am in control of my school performance.
- I feel free to express my ideas and opinions at school.
- I feel that I can be myself at school.

Autonomy (3 items)

- I am a good student.
- My school work gives me a sense of accomplishment.

Competence (2 items)

- I get along with others at school.
- I fit in at school.

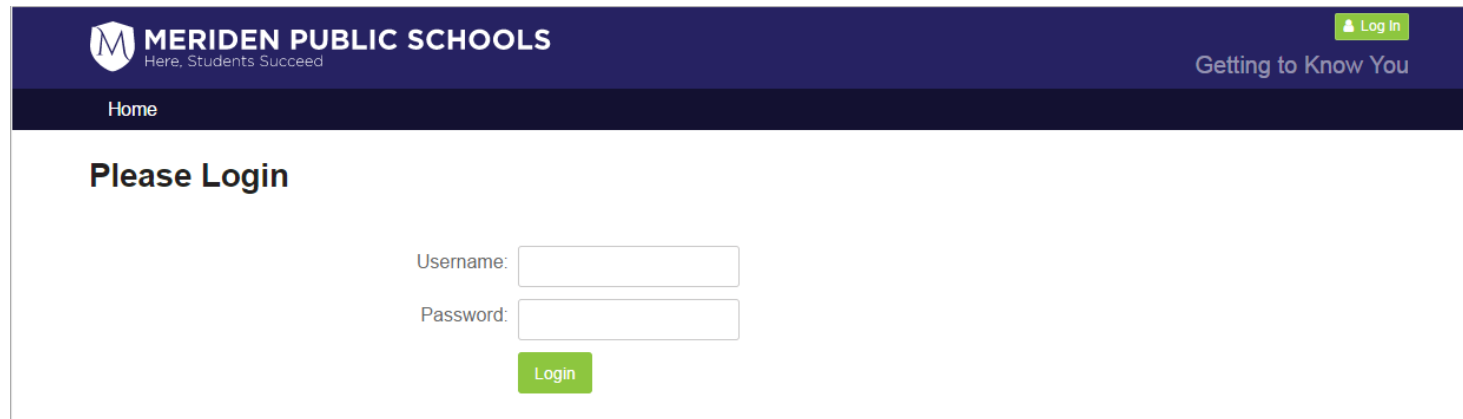
Relatedness (2 items)

SSP: the acquisition of skills and attitudes needed to be an effective learner in school and across the life span.

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Meriden's Getting to Know You Survey (GTKY)

How can teachers view their new students before the start of school: **Getting to Know You Survey**



The screenshot shows the login interface for the Meriden Public Schools Getting to Know You Survey. At the top left, the Meriden Public Schools logo is displayed with the tagline "Here, Students Succeed". To the right of the logo, the text "MERIDEN PUBLIC SCHOOLS" is written in a bold, sans-serif font. Further right, there is a green "Log In" button with a small upward-pointing arrow icon. Below the logo and text, the words "Getting to Know You" are written in a smaller font. A dark blue horizontal bar spans the width of the page, containing the word "Home" in white text. Below this bar, the text "Please Login" is displayed in a bold, black font. Underneath, there are two input fields: "Username:" followed by a white text box, and "Password:" followed by a white text box. Below the password field is a green "Login" button.

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Meriden's Getting to Know You Survey (GTKY)



Welcome to the Getting to Know You Database and Classroom Resources for Teachers

The motivational scales (see Classroom Resource #1 for a list of these questions) and two (2) mindset scales (see Classroom Resource #2 for a list of these questions) range from 1.0 to 5.0. The higher the scale the more the student is engaged (**green**), and the lower the scale the more disengaged (**red**). Exception: for Fixed Mindset which is reversed; the lower the Fixed Mindset scale the better (**green**).

All Getting to Know You Scales (except for fixed mindset)					
1.0	2.0	3.2	3.6	4.0	5.0
Red	Red	Black	Green	Green	

The Fixed Mindset Scale					
1.0	2.0	3.2	3.6	4.0	5.0
Green	Green	Black	Red	Red	

These data from the GTKU Survey, especially “low” data (**red**) from this survey, are not meant to set teacher expectations. These data are intended to help guide teacher interactions and support for each student. Teachers have the difficult task of "taking students where they are", and delivering a differentiated curriculum where each student will experience “success with effort”.

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Meriden's Getting to Know You Survey (GTKY): Automated Interactive Reports *for* teachers before the start of school

Survey Responses	Added Info	Sample Writing Class Report								
		Name	Q1	Q2	Q3	Q4	Subject Scale	Growth mindset	Fixed mindset	College Career Skills
<input type="radio"/>	<input type="radio"/>	Kim	4	3	3	3	3.3	4.4	2.2	4.6
<input type="radio"/>	<input type="radio"/>	Jose	3	3	4	5	3.8	4.2	3.2	3.9
<input type="radio"/>	<input type="radio"/>	Chris	5	4	5	4	4.5	4.6	2.6	4.3
<input type="radio"/>	<input type="radio"/>	Kyle	2	3	3	2	2.5	3.3	3.6	2.9
<input type="radio"/>	<input type="radio"/>	Josh	1	2	1	2	1.5	2.8	3.8	3.0
<input type="radio"/>	<input type="radio"/>	Angel	4	5	5	4	4.5	4.2	2.4	4.2
<input type="radio"/>	<input type="radio"/>	Taylor	5	5	5	5	5.0	4.8	3.0	4.5

Josh and Kyle are disengaging students (in writing); the teacher will need to build a positive teacher-student relationship, express empathy and provide scaffold instruction for these students.

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Meriden's Getting to Know You Survey (GTKY): Survey Responses link reports each student's interests (questions 1 to 15)

Is there a particular sport ... you enjoy? If yes, what sport(s)? *"football and lacrosse"*

Do you play a musical instrument? If yes, what instrument do you play? *"Trumpet"*

Do you sing in a choir or like to sing? (skip) Would you like to sing in a group at school or learn more about singing? (skip)

Do you have a mobile device or computer at home you could use to do school work? *"Yes"*

What other activities do you enjoy doing either in or out of school?' *"football and lacrosse"*

Other students wrote: *"hanging out with friends and family"*

"Reading books, doing art , any kind of crafts or things that have to do with art."

"I enjoy playing with my neighbors or friends, and roller skating."

Do you have a favorite book? If yes, what is the title of this book? *"Diary of a wimpy kid dog days"*

What else would you like us to know about you as person?' *"my mom is not around"*

Other students wrote: *"I have asthma"*

"I like to spend my free time indoors playing video games."

"I'd rather work alone and I hate talking."

"I get nervous very easily"

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Meriden's Getting to Know You Survey (GTKY):

Additional Information link (?):
for other relevant student information

(at-risk levels are shaded red)

	Fall 2016	Fall 2017	Difference
Sense of Belonging ?	5.00	3.83	-1.17
Teachers Care ?	5.00	3.73	-1.27
Safety ?	4.29	3.29	-1.00
Respect for Others ?	5.00	4.20	-0.80
Friends ?	5.00	4.25	-0.75
Parent Values School ?	5.00	4.00	-1.00
Parental Support ?	4.50	2.25	-2.25
Aggression ?	5.00	4.67	-0.33

	Pre 2017	Post 2018	Scale Score Growth
SBAC ELA Level ?	1.00	1.00	31.00
SBAC Math Level ?	2.00	1.00	-10.00
PSAT/SAT EBRW ?			
PSAT/SAT Math ?			


	2018	
College & Career Scale ?	3.17	1_not_ready

	June 2017	June 2018
Percent Attendance (?)	94.5%	89.2%
Office Referrals (?)	6	8
Suspensions (?)	1	0

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Meriden's Getting to Know You Survey (GTKY): Additional Information link (?) for definitions.

Most teachers are not aware of the climate survey factor scales, so definitions are provided:

Teachers Care (?)  This scale measures the student's perception that teachers care, can be trusted, treats me fairly with respect, listens to the student and motivates students to learn. Scale score below 3.0 or decreases of 1.0 or more is a possible at-risk indicator.

Safety (?) A student's perception that he/she feels safe at school or going to and from school. Low scores may indicate the student worries about people being mean, hurts his/her feelings, or is threatened or gets hit in school or mean rumors are spread about them. Scale score below 3.0 or decreases of 1.0 or more is a possible at-risk indicator.

Respect for Others (?) A student's perception that students respect differences in other students. Low scores may indicate the student feels his/her skin color can get him/her in trouble or the student feels harassment is a problem. Scale score below 3.0 or decreases of 1.0 or more is a possible at-risk indicator.

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Meriden's Getting to Know You Survey (GTKY): Additional Information link (?) for definitions.

Parent Values School (?) Student perceptions of parents/guardians caring about his/her schoolwork, and/or wants the student to "do your best" and expects the student to follow school rules. Students with low scale levels below 3.5 or decreases of 1.0 or more may not value schoolwork and puts less effort or no effort into their schoolwork.

Parental Support (?) Student has a place and time to do their homework and a parent/adult who will help and listen to them. Students with low scale levels below 3.0 or decreases of 1.0 or more may not have the physical location or time to do their homework assignment(s).

Friends (?) A student feels he/she has a friend that cares about them, can be trusted and can talk to if there is a problem. Low scores may indicate a social isolation problem. Scale score below 3.0 or decreases of 1.0 or more is a possible at-risk indicator.

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Meriden's Getting to Know You Survey (GTKY): Additional Information link (?) for definitions.

Aggression (?) Student has pushed/hit or spread mean rumors about other students. Low scale values below 3.5 or decreases of 1.0 or more is a possible at-risk indicator.

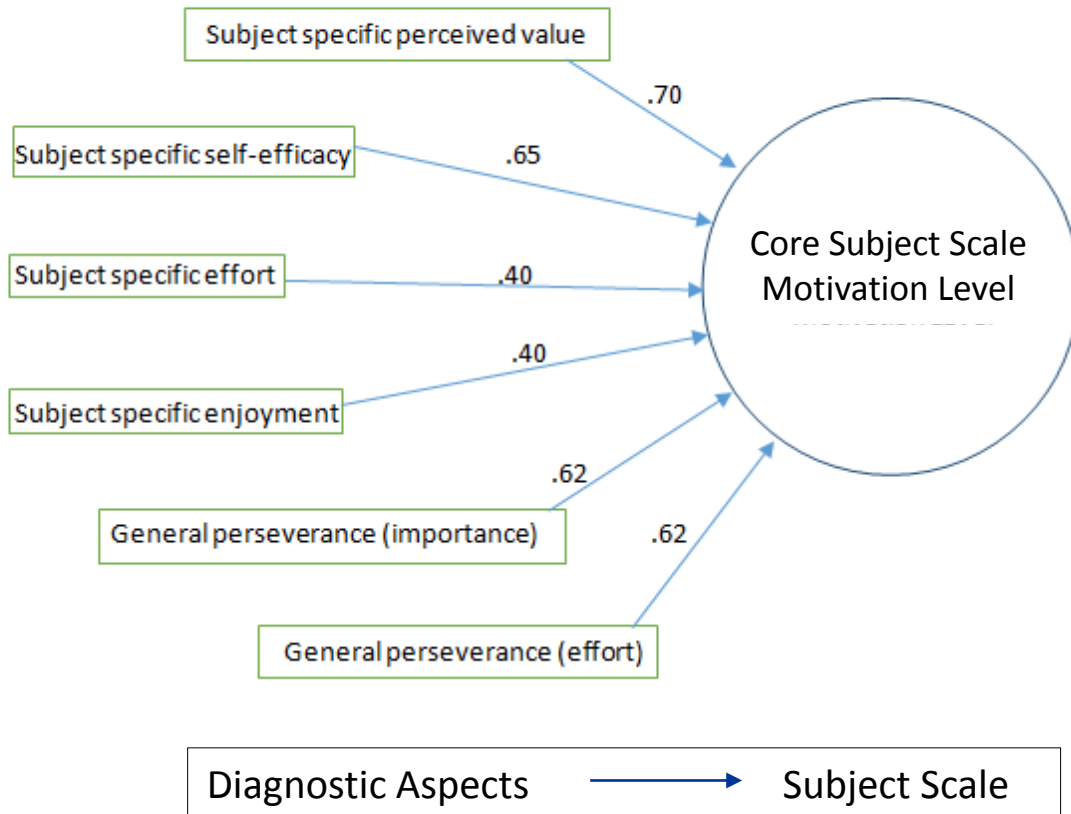
Sense of Belonging (?) A student's "Sense of Belonging" is an indication of each student's valuing his/her school experience. The scale is a measure of the student's perception that teachers care and can be trusted, schoolwork is meaningful, the student feels safe, respected, has caring friends and is happy to go to school. Scale score below 3.2 or decreases of 1.0 or more is a possible at-risk indicator.

College & Career Scale (CCS) (?) A student's social-emotional readiness for college and career is comprised of a student's intrinsic motivation, and his/her sense of competence, autonomy, and relatedness or the student's ability to work and relate to others. A CCS scale score of less than 3.4 is 1 not ready; a CCS scale score of 3.4 to 4.0 is 2 almost ready; and a CCS scale score of 4.0 higher is 3 CCS-ready.

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Meriden's Getting to Know You Survey (GTKY): Edwards & Bagozzi (2000) and National Research Council (pp. 25-35; 2012)

Meriden's Formative Causal Model for Motivation by Subject Area



Sample Writing Class Report

Name	Q1	Q2	Q3	Q4	Subject Scale
Kim	4	3	3	3	3.3
Jose	3	3	4	5	3.8
Chris	5	4	5	4	4.5
Kyle	2	3	3	2	2.5
Josh	1	2	1	2	1.5
Angel	4	5	5	4	4.5
Taylor	5	5	5	5	5.0

How subject scales are calculated and adjusting for Socially Desirable Response (SDR): effort has lowest weight. If you click on 2.5 →



Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Meriden's Getting to Know You Survey (GTKY):

Teacher's View: Drilling Down to a Particular Student

The screenshot shows the 'Getting to Know You 2017-2018' interface for student Kyle. The page title is 'Getting to Know You 2017-2018' and the student name is 'Student: Kyle'. The factor being viewed is 'Writing'. A table displays the results for various questions, including scores, weights, and weighted scores. The average weighted score is 2.45, highlighted in a red box.

Question	Topic	Answer	Score	Weight	Weighted Score
Even with a difficult task, I keep trying and don't give up.		3	3	0.62	1.86
If something is important to me, I'll keep working to get to it, no matter how hard it may be.	Importance	3	3	0.62	1.86
For me, it is important to be able to write well.	Importance	3	3	0.67	2.01
I am a very good writer.	Self Efficacy	3	3	0.57	1.71
During this past school year, how carefully and thoughtfully did you write your assigned writing tasks in Language Arts (ILA) class?	Effort	1	1	0.46	0.46
During this past school year, how much did you like your Language Arts (ILA) writing?"	Like	1	1	0.49	0.49
				3.43	8.39
				Average Weighted Score:	2.45

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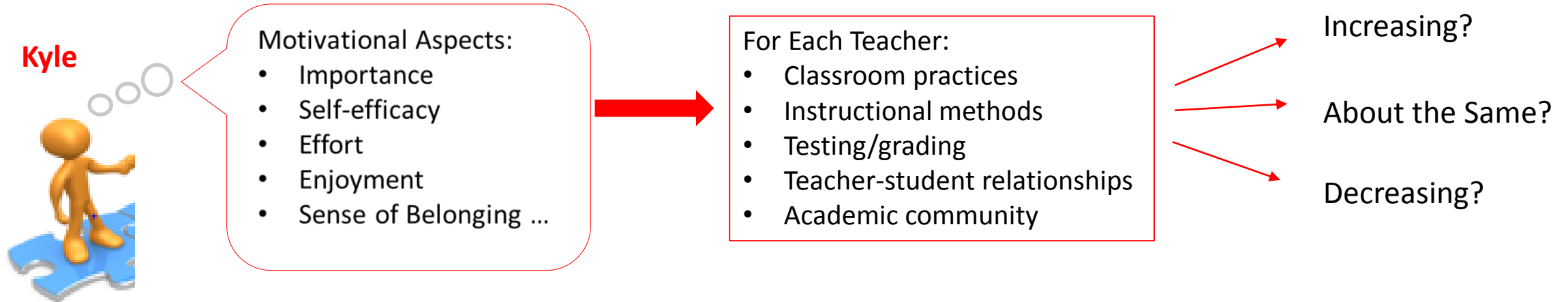
Meriden's Getting to Know You Survey (GTKY): Summary

- Identify student interests to help foster teacher-student relationships ...
 - using GTKY data is voluntary for classroom teachers (participation rate about 61%).
- Identify disengaging students by subject area and within each classroom ...
 - help teachers plan and provide proactive support.
- Provide measures to evaluate pedagogical interventions overtime by grade level
 - growth mindset;
 - fixed mindset;
 - College and Career skills; and
 - subject area ... and by teacher ...

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Meriden's Getting to Know You Survey (GTKY): Summary

One objective of GTKY is to support discussions concerning school and classroom practices.



Students enter in September with self-beliefs about this subject, and leave this teacher's class with what self-beliefs?

Motivational aspects are both **diagnostic and malleable**; these aspects are strongly influenced by **classroom practices**. How can we present motivational aspect changes (see Appendix) so they would be meaningful to teachers?

In addition to individual teacher interventions, we are developing **pedagogical interventions at scale**.

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Pedagogical Interventions

Student Success Plan (SSP):

- The identification of students who need proactive support and intervention
- Helping students become more fully engaged in the school environment
 - Consider adult actions that could improve student engagement
 - Revisions in grading practices
 - Classroom practices that foster:
Supportive learning communities; and
Increasing subject relevance (Farrington, 2012).

First, some **background information** on pedagogical interventions ...

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Pedagogical Interventions: Background Information

What is the Purpose?

Kyle, a student, enters class on the first day of school; he hates this subject – He never did well in it - “I’m just not a (this subject) guy”.

Enter the insightful teacher*, she never met Kyle but she already knows a lot about him. On the first day of school, she looks into his eyes and sincerely says “I know you’ve had problems with (this subject), but ... this year will be different ... you'll see!”

Over the next few weeks, the teacher scaffolds her instruction with Kyle. He struggles ... but begins to succeed. “Gee,” says Kyle , “I *can* do this ... and I’m pretty good at it too.”

Kyle had a great teacher because she changed how he sees himself ... his **self-beliefs** ...

*See slides 42-44 and 49 (automated GTKY survey reports)

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Pedagogical Interventions: Background Information

Rather than a student's positive view of his/her possible "future selves", some students have **self-beliefs** that can create unseen barriers to their academic, testing and life span success, such as:

- I cannot succeed in this class (for Kyle, he could not succeed in ... that class);
- Teachers don't care;
- I do not belong here;
- School work is not important; or
- I cannot succeed in SBAC.

Other primary barriers are **stereotype threats**, a root cause of **Connecticut's achievement gap**:

- Females cannot do science;
- Blacks cannot do well in school;
- Hispanics cannot do well in school; and
- Students of poverty cannot do well in school.

These messages are often **recursive**, repeated over and over again in different forms, both in and out of school. Eventually, **some** students begin to believe those inhibiting messages.

These self beliefs are malleable.

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Pedagogical Interventions: Background Information

We can develop pedagogical interventions that alter students inhibiting self-beliefs such as:

I am not a good student in this class.

I do not really belong in this school.

Teachers don't really care about me.

I don't have friends that really care about me.

I'm the only one lost in this big new school.

The SBAC is not important to me.

I don't get any credit for taking SBAC.

I worry about doing well when compared to others.

SBAC is too hard for me to be successful.

Teachers don't know how I do on SBAC.

As well as aggressive beliefs: "people better not disrespect me ... or else".

This presentation's recursive message: **These self-beliefs are malleable.**

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Pedagogical Interventions: Background Information

Pedagogical interventions can change how some students see themselves with lasting effects, but these interventions must be “stealthy”. They cannot be seen as an intervention which sends a message that students may not be capable to succeed.

If I am not capable, ... don't try, give up, and ... devalue the task/subject.
self-efficacy, effort, perseverance, importance = motivation/engagement

Students also to be an active participant – not a passive receiver of what a teacher says.

Examples:

Asking students to read and write, or give a speech provides students time to think about and internalize new, more positive self-beliefs.

Teachers just can't tell student ... **students need to change their own self-beliefs.**

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Based on national research, two pedagogical interventions have been designed to alter inhibiting self-beliefs and were piloted in Meriden:

(1) SBAC Target Cards

- for students in grades 3-8

(2) Transitions Writing Assignment

- for students entering grade 6 and 9

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SBAC Target Cards

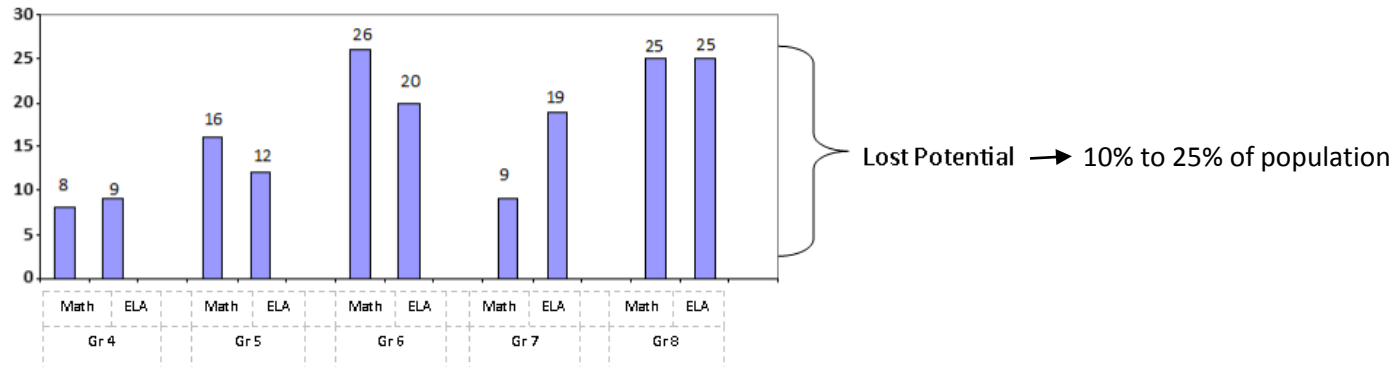
Designed to improve SBAC Scale Scores
for some students

What is the student population we would like to address?

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

SBAC Target Cards: the population we are addressing

Percent of Meriden Students with Decreasing Scale Scores < -1 Standard Error of Measurement (SEM) in Spring 2017



This intervention was designed to reduce the percent of students with **decreasing SBAC scale scores ≥ 1 SEM**.

- lower reading and math motivation;
- lower growth mindset
- higher fixed mindset; and
- lower sense of belonging in grades 4, 5, 6 and grade 8 with an increasing gap.

To determine the inhibiting student beliefs from successful and accurate SBAC testing, we designed a **Test Taker Survey**.

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Identify and Mediate SBAC Barriers: Test Taker Survey (Grades 4 – 9)

Students logged into our online Test Taker Survey site with their district credentials. The customized software (designed for this intervention) recognized their student ID number.

Students were told:

“We are considering changing or decreasing the amount of testing in the Meriden Public Schools. To do this, we need to understand how students really feel about the SBAC and other tests. Your personal opinion and experience as a test taker is important to us.

There are three parts to this survey:

- 1) Your feelings about testing in general;
- 2) SBAC testing in English Language Arts (Reading); and
- 3) SBAC testing in Math.

This survey should take less than 5 minutes. Indicate how much you agree or disagree with each statement, there are no right or wrong answers. Thank you for your opinion. This information is important to us.”

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Identify and Mediate SBAC Barriers: Test Taker Survey (Grades 4 – 9)

Test Taking Student Survey

Part I: Testing in General (5 questions)

Part II: SBAC Language Arts (9 questions)

Part III: SBAC Math (9 questions)

Sample items

3. I can read fine, but the SBAC Reading test is not important to me.
5. I never get any credit for taking SBAC.
7. The SBAC Reading test is way too hard for me to be successful.
8. I get stressed out about not doing as well as other students on the SBAC ...

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Identify and Mediate SBAC Barriers

SBAC barriers are student beliefs that inhibit students from successful and accurate SBAC testing.

In Meriden, we have identified five barriers related to SBAC growth:

- A. The SBAC is not important to me;
- B. I don't get any credit for taking SBAC;
- C. I worry about doing well when compared to other students;
- D. SBAC is too hard for me to be successful; and
- E. Teachers don't know how I do on SBAC (reported by teachers).

A pedagogical intervention was designed to address these five SBAC Barriers.

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Identify and Mediate SBAC Barriers: design individual SBAC Target Cards for each student in grades 3-8

These cards included:

- Each student's growth "target", assigned by the Connecticut Department of Education in both ELA and Math, based upon each student's previous SBAC scores, and
- A promise of a reward if they "beat their target" in either ELA or Math.

For students without previous SBAC scores, new students (13%) and all of grade 3, regression equations* were built to predict each student's SBAC scores (plus an estimated growth target).

* Equations used scores from district academic tests, as well as measures of motivation, growth and fixed mindset, school climate, sense of belonging, attendance, behavior and demographic variables.

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Meriden's SBAC Target Cards: "With effort and persistence, most students beat their Target".

Messages to Students

Personalization will increase importance

Personalized choices of reward increases SBAC importance (credit)

Personalized obtainable goal

Teachers care and will know your past and future SBAC growth

Last year, Brian did not use enough effort in ELA (negative growth). So, it will be easier for him to improve his scale score growth this year

Personal SBAC Scale Score Growth Targets for
Brian White

**Just Improve your Scale Score and Win!
Beat Your Target and Win Twice!**

SBAC 2018 Target ELA = 61 Target Math = 47

Your SBAC 2017 (Gr 6-7) Growth: ELA = -13 Math = 34

Your SBAC 2016 (Gr 5-6) Growth: ELA = 55 Math = 52

Your growth is important; your teachers will help you succeed.

School/Grade: LMS/Gr 8 Teacher(s): Cury/Baker 17

Message to teachers: "These are your growth data too"

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SBAC Target Cards: About 13% of grade 4 to 8 students (and all grade 3) did not have any previous SBAC scores.

These students will receive a SBAC Target Card with a scale score target rather than a growth target.

Personal SBAC Scale Score Growth Targets for
Brian White

Just beat your Scale Score and Win!

Target ELA = **2468**

Target Math = **2398**

Your SBAC 2017 (Gr - -) Growth: ELA = -N/A Math = N/A

Your SBAC 2016 (Gr - -) Growth: ELA = N/A Math = N/A

Your growth is important; your teachers will help you succeed.

School/Grade: LMS/Gr 8

Teacher(s): Cury/Baker 17

No previous SBAC scores on record

*Student will have 4-digit scale score
and no previous growth*

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

SBAC Target Cards were sorted by school, and teacher

What schools needed to do **before** SBAC testing:

1. Determine school-based rewards (ELA reward & Math reward);
2. Involve student choice (activity);
3. Provide SBAC motivational activity; and
4. Teachers hand out SBAC cards individually to each student, saying
 - SBAC testing is important to our school
 - Your SBAC results are important to teachers
 - Teachers will know your scores/growth
 - Students beating their target(s) will get a reward(s) in August/September
 - **Especially for grades 5 and 8 students**, we can offer rewards such as free tickets to sporting events at their next Meriden school.

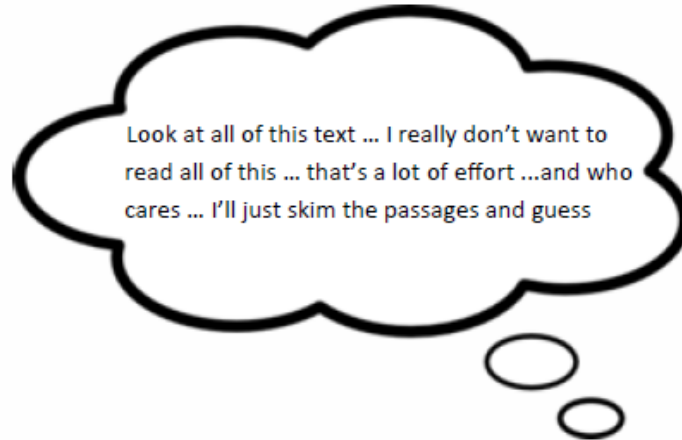
After discussions and student input, we provided students' choice of rewards in an online Google form.
(Most typical rewards: make your own ice cream sundae, extra gym time, ear buds, free tickets to high school sporting events)

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

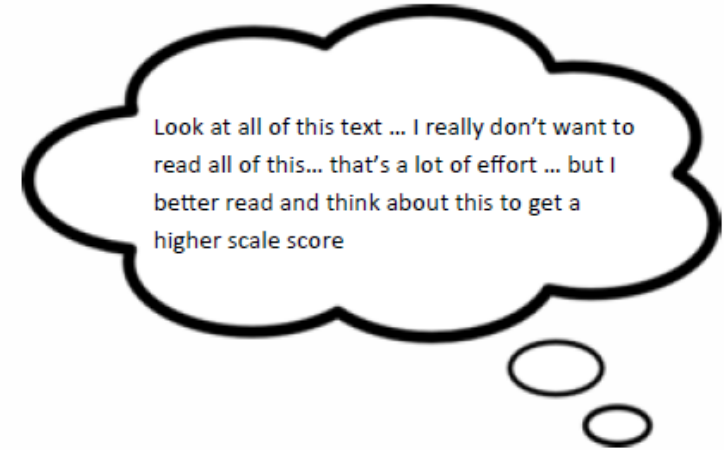
What this intervention is trying to do ...

To the teacher observing students taking SBAC, both students are engaged, looking at the computer screen ... and thinking ...

Student #1 (Alice)



Student #2 (Betty)



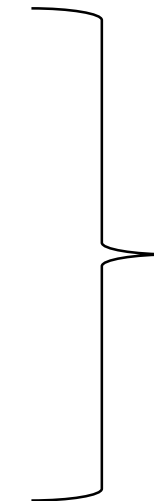
The objective of our 2018 SBAC intervention is to get students like Alice to be more like Betty.

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Results: SBAC Target Cards

Percent of Students with Decreasing Scale Scores Greater than -1 SEM by Grade Level and Year

Grade Level	ELA			MATH		
	2017	2018	Change	2017	2018	Change
4	8.7	3.7	-5.0	7.8	1.6	-6.2
5	12.4	5.0	-7.4	16.0	7.4	-8.6
6	19.7	10.0	-9.7	25.3	14.7	-10.6
7	18.2	10.9	-7.3	9.1	9.1	0
8	24.9	14.0	-10.9	25.1	37.5	+12.4



Intervention's
Primary
Objective

40% to 60%
Improvement

- Seems like successful intervention in ELA for all grades;
- Math, grades 4, 5 and 6 improved, but not grades 7 & 8;
- Grade 7 had a strong decrease -1 SEM in ELA , but no change in -1 SEM in Math; and
- Grade 8 had a strong decrease -1 SEM in ELA, but a strong increase in -1 SEM in Math.

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Results: SBAC Target Cards: implementation issue

The SBAC Target Card protocol was to have students be involved in selecting their reward before they take the test ... However, 22% of ELA test-takers did not select a reward before SBAC testing.

Grade Level	Timing of Reward Selection	Average Scale Score	Scale Score Growth 2017-18	ELA PTA	2016-2017-2018	
					Average Scale Score Ranking	PTA
4	No Reward (12%)	2428	46	60.4		
	With Prior Reward	2478	58	71.1	Highest	Highest
5	No Reward (11%)	2510	47	67.4	Highest	Highest
	With Prior Reward	2499	52	66.4	2 nd Highest	2 nd Highest
6	No Reward (27%)	2477	11	45.2		
	With Prior Reward	2512	39	63.7	Highest	Highest
7	No Reward (28%)	2489	29	50.9		
	With Prior Reward	2541	30	57.5	Highest	Highest
8	No Reward (34%)	2508	11	42.8		
	With Prior Reward	2557	25	57.0	Highest	Highest

Except for grade 5, the knowledge of a small externally regulated reward seems to influence both overall average achievement, average scale score growth and ELA PTA.

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Results: SBAC Target Cards: implementation issue

Math test-takers (16%) did not select a reward before SBAC testing.

Grade Level	Timing of Reward Selection	Average Scale Score	Scale Score Growth 2017-18	Math PTA	2016-2017-2018	
					Average Scale Score Ranking	PTA
4	No Reward (5%)	2444	52	69.9		
	With Prior Reward	2480	56	75.8	Highest	Highest
5	No Reward (5%)	2514	42	66.3	Highest	
	With Prior Reward	2492	39	69.6	2 nd Highest	Highest
6	No Reward (28%)	2473	17	48.8		
	With Prior Reward	2501	35	67.3	Highest	Highest
7	No Reward (24%)	2480	46	67.8		2 nd Highest
	With Prior Reward	2529	36	64.5	Highest	3 rd Highest
8	No Reward (32%)	2466	-20	29.3		2 nd Lowest
	With Prior Reward	2511	-17	25.6	Highest	Lowest

- For grades 4 and 6, the knowledge of an external reward influenced both overall average achievement and Math PTA.
- For grades 7 and 8, knowledge of a prior reward seems to influence achievement but not Math PTA.

Transitions Writing Assignment

Designed to address inhibiting self-beliefs of students entering grade 6 and grade 9, such as:

- negative views of their possible future selves; and
- stereotype threat.

To determine these inhibiting beliefs, we asked students to write short essays.

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Transitions Writing Assignment (for students entering grade 6 and 9)

In the spring of 2017, visits were made to grade 8 and grade 12 English teachers. These teachers were asked to personalize this sample assignment and have their graduating students write a “short essay”.

Recall when you were a freshman (or grade 6) and you were entering a new and much larger school. Do you remember your concerns or worries or problems that you had at that time? Next August, new students will be entering your school, they will have very similar concerns and problems; write to them.

Remember a problem or concern you had back then, and describe how it got better over time; how you changed, why you changed, and who helped you. What advice would you give to these incoming students?

Your short essays about a problem that got better will be selected and included into an **online bank** of short essays that incoming students will be assigned to read and learn from your experience.

Typical types of problems/concerns are: making friends, getting good grades, homework, general advice about your school, being new to U.S., Bilingual (Spanish essays), behavior problems, or any other issue.

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Transitions Writing Assignment (for students entering grade 6 and 9)

Over 400 student essays were returned ... 83 were selected, “slightly edited” and grouped into themes.

These essays represent Meriden’s students’ inhibiting beliefs

Middle School Transition’s Themes (n=35)

1. Making Friends;
2. Grades: doing well in class;
3. General Advice; and
4. Bilingual (Spanish)
5. *Bad Behavior (Fall 2018)*
6. *New to Meriden Schools (Fall 2018)*

High School Transition Themes (n=48)

1. Making Friends;
2. Grades: doing well in class;
3. General Advice;
4. New to the U.S.; and
5. Bad Behavior

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Transitions Writing Assignment (for students entering grade 6 and 9)

Example of “slightly edited” student essay:

Stereotype threat {
White = 5
Blacks = 3
Hispanics = 3

White, Female

Dear 6th grader,

Right now i am a girl in 8th grade period 3 writing class there is 10 days of school left.

One the thing i've struggled a lot is getting good grades. i really didn't even care about them, but good grades do matter because it has affected me by not being able to go to activities like field trips, because how bad they were.

I was able to deal with this by talking with my teachers **and sometimes going after school for help** and by actually doing my work. **Teachers care and they helped me**. After a while I got somewhat of a good grade on a test. I kept doing my work and i ended up getting high honors and regular honors for 2nd term. I really don't know i got though i guess i had a goal to get them and with extra help, I did it. I was proud of myself because it has taking me a while to get here.

(Green text indicates typical edits by the researcher)

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Transitions Writing Assignment (for students entering grade 6 and 9)

Grade 6/9 Teacher Assignment (slightly edited for this presentation):

“Last year, many of our graduating students from this school were excited to write short essays to you about their experiences and problems they had as new students. These essays are posted on our “Transitions” <https://transition.meridenk12.org> site.

Your assignment is to go onto this site and read many of these short essays, which are grouped into themes.

Your writing task is to read at least six of these short student essays (about 15 to 20 minutes), then

- (1) Select any two essays and tell how they are similar, or how they are different; and
- (2) Write about two of your personal values and why they are important to you.

The Transitions site has two text boxes for you to write your responses. If you wish to return to review other typical issues later in the school year, this Transitions site will be open throughout the school year.”

Teacher logon information: Go to “Getting to Know You” logon site <https://gettingtoknowyou.meridenk12.org>

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Transitions Writing Assignment (for students entering grade 6 and 9)

The Transitions Writing Assignment utilizes **two** types of research-based interventions. One is based on Expectancy-Value Theory and the other is based on Values-Affirmation Theory

1. Attributions: addresses inhibiting student self-beliefs; and
2. Values-affirmation exercise: students lists and writes about their personal values.

Values-affirmation exercises remind students of the positive aspects of themselves, which can help some students minimize negative influences, such as peer pressure, and antisocial behaviors, like classroom disruptions and not doing schoolwork.

For both types of interventions, many scientifically controlled studies have demonstrated improved academics and strong increases in prosocial behavior ... **especially for antisocial students.**

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Transitions Writing Assignment (for students entering grade 6 and 9)

Think about a female student who is worried about getting good grades

Maybe she is struggling academically and she is thinking ...

- It is me, I'm the problem;
- I can't do it, just like (someone/some people) always tells me (recursive messages).

Now she is assigned a "writing assignment" (**stealth**) and she reads multiple, older students' essays who felt the same way ...

- each essay has a positive "can do" message;
- she writes about the essays she read (**activity**); and
- she also lists two of her personal values and writes why they are important to her.

After this writing assignment she may now believe ...

"It's not me ... I am not alone ... all students struggle sometimes ... I can get through this."

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Transitions Writing Assignment (for students entering grade 6 and 9)

If a new student has a personal concern (such as worrying about good grades or making friends), then we assume that the student will choose to read what older peers wrote about that theme:

- How *they too had this issue but it got better over time*;
- But I had to do my work ... and teachers helped me; and
- I have my personal values to guide me through the rough parts of life.

Students need to change their own self-beliefs:

“Gee ... it’s not just me ... and I can get through this”.

What themes did students read?

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Results: Transitions Writing Assignment (for students entering grade 6 and 9)

Percent of students reading at least one essay by Transition theme by school level

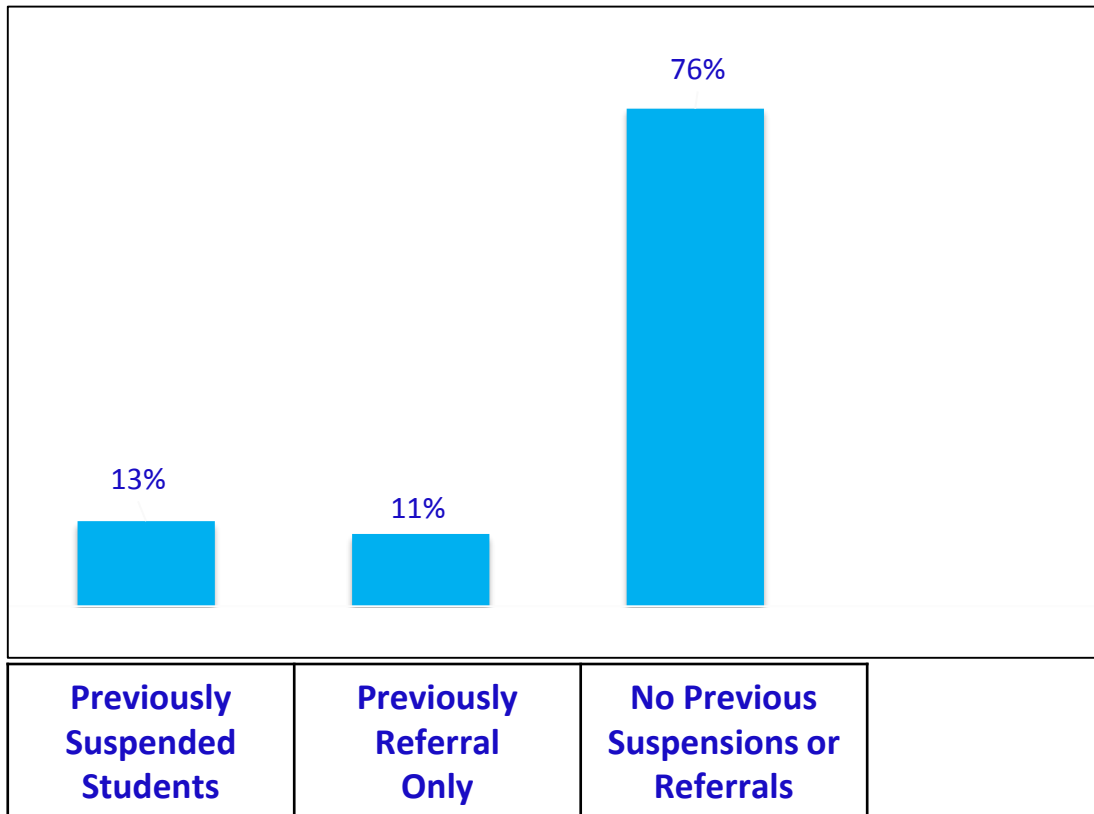
Theme	Grade 9	Grade 6
Bad Behavior	80%	n/a
Good Grades	51%	85%
Friends	48%	77%
General	59%	70%
New to the U.S.	22%	n/a
Bilingual Education	n/a	21%

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Results: Transitions Writing Assignment (for students entering grade 6 and 9)

Bad Behavior Theme

Percent of Students who had Previous Suspensions and Referrals: the population we are addressing



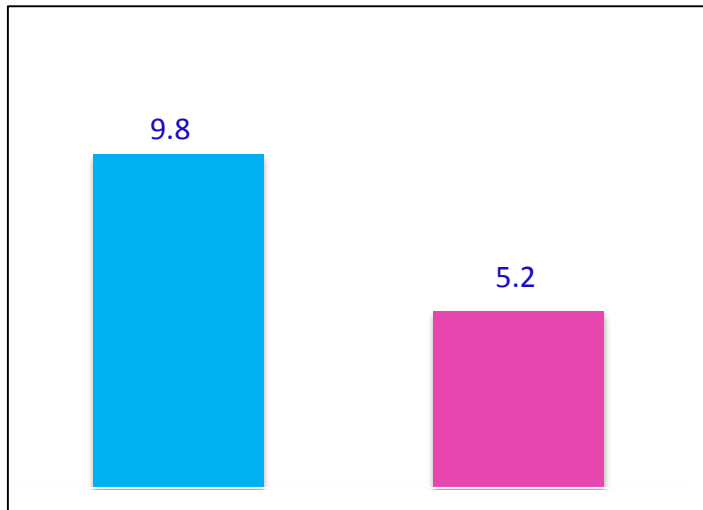
Intervention is only designed to change suspended and referral groups (24%). Those students with the identified “previous bad behavior”.

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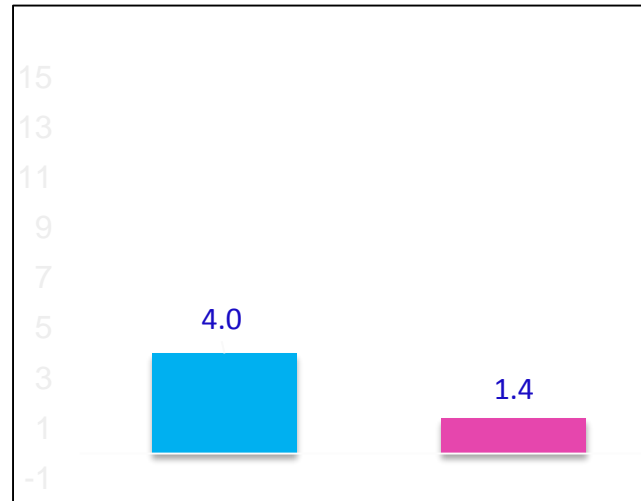
Results: Transitions Writing Assignment (for students entering Grade 9)

Bad Behavior Theme

Average Days Suspended and Average Referrals by Readers* and Non-Readers



NON-READERS	READERS
Average Days Suspended 2017-18	
Previously Suspended Students	
Readers had 47% fewer days suspended	



NON-READERS	READERS
Average Number of Referrals 2017-18	
Previously Referrals Students	
Readers had 65% fewer referrals	

Readers of Bad Behavior Essays (who had previous suspensions or referrals) had fewer days suspended and referrals during 2017-18 school year.

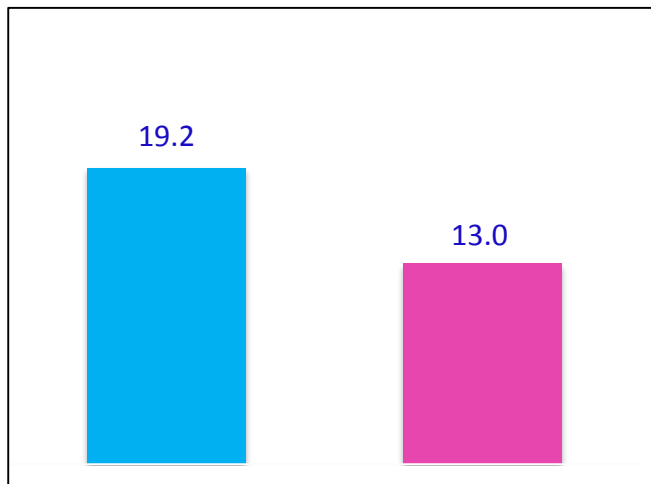
*** “Readers” ... spent time reading multiple essays, wrote about them, listed their personal values, and wrote about those values.**

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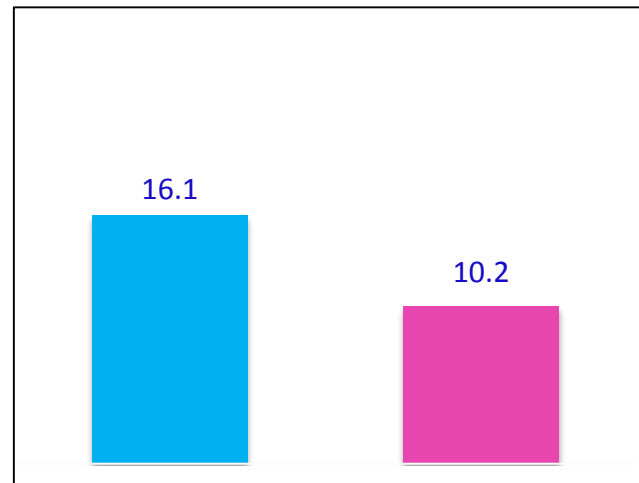
Results: Transitions Writing Assignment (for students entering grade 9)

Bad Behavior Theme

Average Percent Days Absent by Previously Suspended and Referral Students by Readers and Non-Readers



NON-READERS	READERS
Percent Days Absent 2017-18	
Previously Suspended Students	
Readers had 32% fewer days absent	



NON-READERS	READERS
Percent Days Absent 2017-18	
Previously Referral Students	
Readers had 37% fewer days absent	

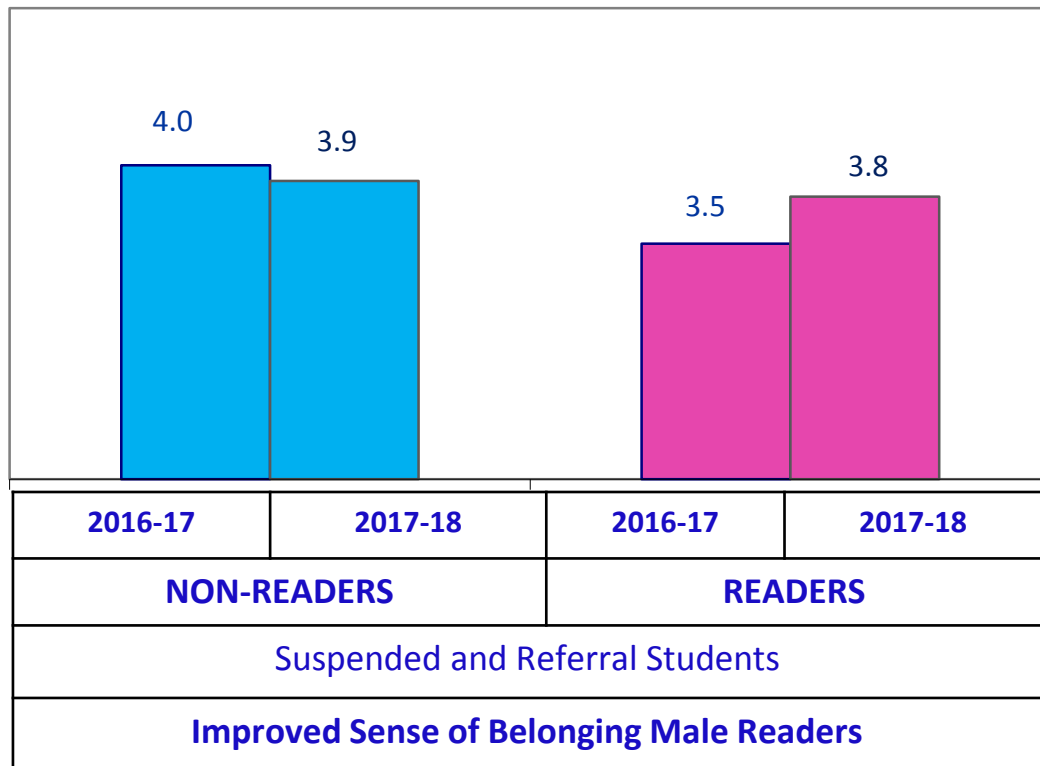
Readers of Bad Behavior Essays (who had previous suspensions or referrals) had fewer absences from school 2017-18 school year.

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Results: Transitions Writing Assignment (for students entering grade 9 - Male students)

Bad Behavior Theme

Sense of Belonging by Previously Suspended or Referrals students by Readers and Non-Readers



Male students who had previous suspensions/referrals and read Bad Behavior Essays, had significant improvements in their Sense of Belonging

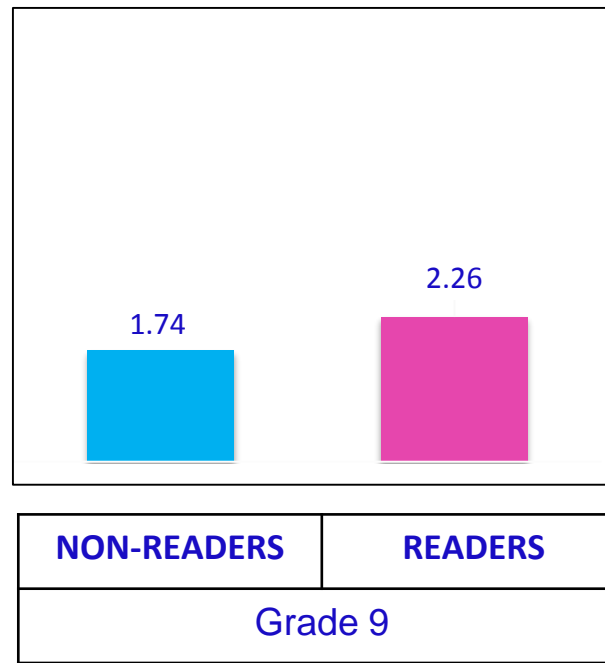
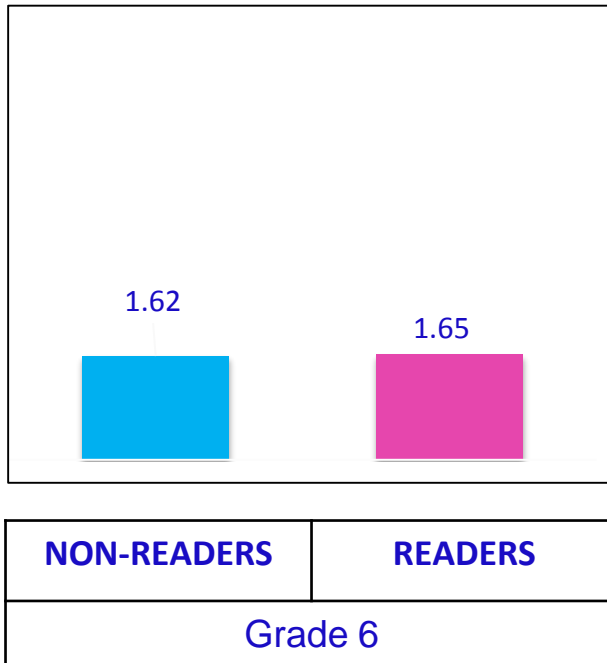
Only 1st Year Results

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Results: Transitions Writing Assignment (for students entering grade 6 and grade 9)

Getting Good Grades Theme

Average GPA of Readers versus Non-Readers of the lowest GPA students (40%) by Grade Level



Readers of Good Grade Essays: no difference in GPA for Grade 6 but higher average GPA for Grade 9 Readers, especially female students.

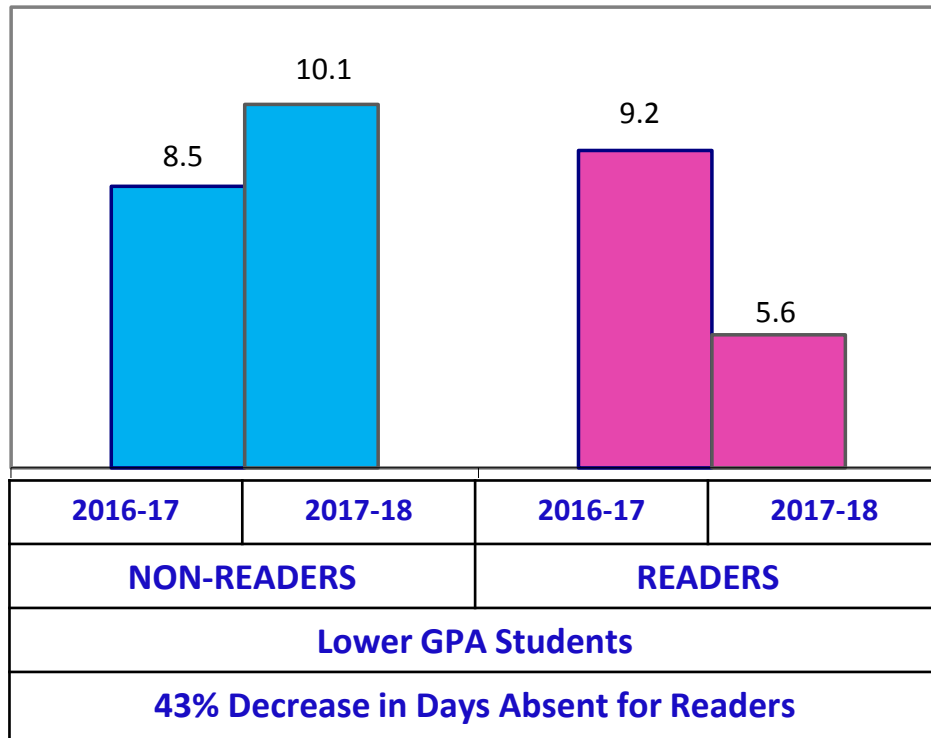
These results (30% higher GPA) are similar to previous controlled studies (*Walton & Cohen, 2011*).

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Results: Transitions Writing Assignment (for students entering grade 9)

Getting Good Grades Theme

Average Percent Days Absent by Readers and Non-Readers of the lowest GPA students (40%) by Year



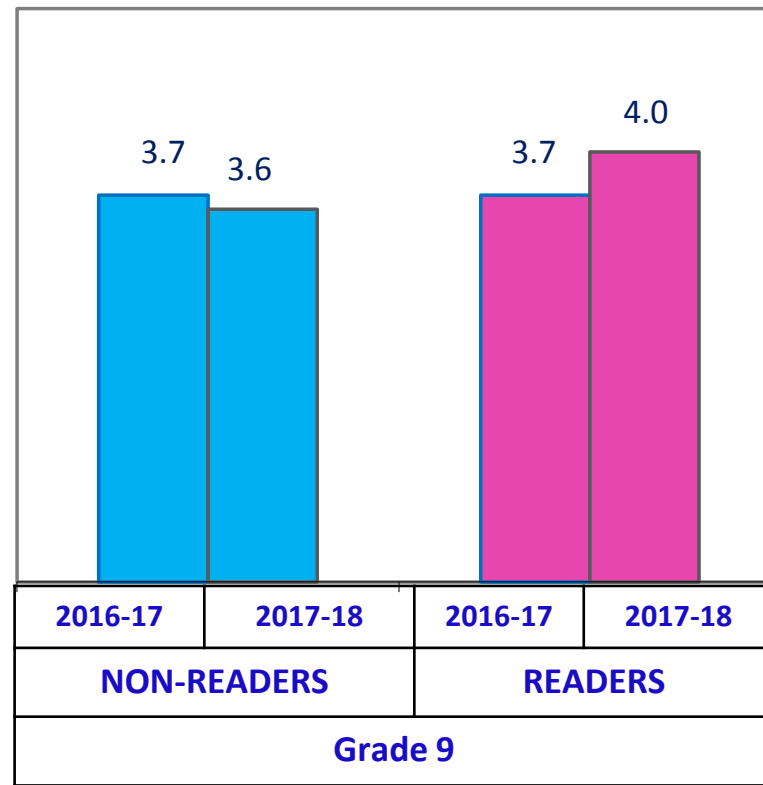
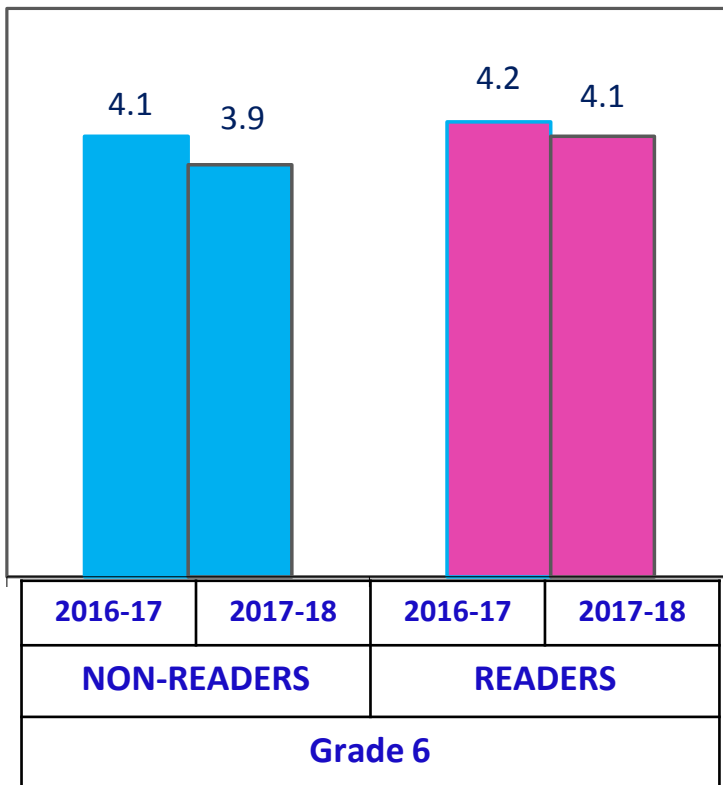
Good Grade Essays:
decreasing absent rate for
Grade 9 Readers.

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Results: Transitions Writing Assignment (for students entering grade 6 and 9)

Getting Good Grades Theme

Average Sense of Belonging of Readers versus Non-Readers of the lowest GPA students (40%) by year



Grade 6 Non-Readers of Good Grade Essays had a significant decrease in Sense of Belonging (“normal”) and Grade 9 Readers demonstrated a significant increase in Sense of Belonging, especially for males.

Only 1st Year Results



Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Summary Results of Two Non-Cognitive Interventions at Scale

SBAC Cards ... addressing students who give up too early

- 40 to 60% fewer students with -1 SEM scale score decreases (except Math grades 7 & 8)
- Higher ELA scale scores and PTA (all grades)
- Higher Math Grades scale scores and PTA (grades 3 to 6, not grades 7 or 8)

Transitions Writing Assignments ... addressing stereotype threats and views of possible selves

- Decreased suspensions and office referrals (grade 9)
- Improved GPA (grade 9)
- Fewer days absent (grade 9)
- Improved Sense of Belonging (1st year results)
- Grade 6 students need more on-task writing assignment time (2 sessions)
 - Grade 9 students had 2 sessions (at the end of Grade 8 and beginning of Grade 9)
 - Rozek, *et. al.* (still in preparation) Grade 6 students had 2 sessions (September & November) with increased GPA ... and Sense of Belonging

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Summary of Presentation

Connecticut's Student Success Plan challenges school districts to have all students:

- Acquire academic skills;
- Development of 21st Century Skills (positive attitudes, beliefs and personal competencies);
- Be engaged in the school environment;
- Develop positive physical health/diet; and
- Identify students who need proactive support and provide effective intervention.

We cannot improve at scale what we cannot measure*.

The Problem for SSP:

How do we measure at scale, attitudes, engagement, health/diet and intervene when necessary? 

* Bryk, A., Gomez, L., Grunow, A., & LeMahieu, P., 2015); Learning to Improve: How American Schools Can Get Better at Getting Better; Harvard Education Press, Cambridge, MA.

Performance Matters Forum 2018: Non-Cognitive Measures to Improve Student Outcomes

Practical Measurement Systems and Interventions:

Meriden's School Climate Survey for Students

- Collects student perceptions of caring, safety, respect, friends: **Sense of Belonging**
- Automated emails (Trigger, low Factor scores and scale change)

Meriden's Getting to Know You Survey

- Collects motivation/engagement by subject, mindsets, **College/Career Skills** and health/diet
- Low **motivation/engagement** (automated GTKY survey reports disengaging students to teachers)

Pedagogical Interventions

- SBAC Cards (generally successful)
- Transition Writing Assignments (generally successful, especially grade 9, revisions made for Fall 2018)

These survey systems are “freely available” to school districts.

Pedagogical interventions are much more difficult to develop, implement and share (local characteristics/barriers vary).

However, if some districts want to form a working/support group, we could help each other.

Performance Matters Forum 2018:

How Districts Can Use Non-Cognitive Measures to Improve Student Outcomes

Recursive Messages in this Presentation

- Selected phrases from Connecticut's Student's Success Plan
- Sense of Belonging to School and Classroom
- Disengagement from school or subject
- Motivational aspects are both diagnostic and malleable
 - Importance, self-efficacy, effort, enjoyment, perseverance
- We cannot change what we cannot measure
- Some students have inhibiting self-beliefs - which are malleable
 - I can't do it; I don't belong; stereotype threat
- Students need to change their own self-beliefs – they cannot be told by others
- College and Career Skills: intrinsically motivated, autonomy, competence, relatedness

Questions?

Performance Matters Forum 2018:

How Districts Can Use Non-Cognitive Measures to Improve Student Outcomes

Appendix

Selected slides from:

U. S. Department of Education, National Center for Education Statistics

NCES 2017 STATS-DC Data Conference
Using Motivation Data to Influence Classroom Practices

Performance Matters Forum 2018:

How Districts Can Use Non-Cognitive Measures to Improve Student Outcomes

Average Matched Score Changes in Student's Perception of the Importance of Reading by Grade 7 Reading Teachers by Section		
Motivation Aspects Changes		
Teacher-Class	Important	Self-efficacy
C.S. 2-2	-0.53	-0.41
W.T. 2-1	-0.58	-0.33
W.T. 2-2	-0.63	-0.29
W.T. 2-3	-0.67	-0.19
District Gr 7 Average	-0.20	-0.14

Teachers and administrators may be resigned to say these matched score decreases in the perceived importance and self-efficacy of reading are “normal” for middle school students ... but “normalcy” can be changed by educators. There are pedagogical interventions that address student perceptions of school work relevance and self-efficacy.

Aronson, et. al, 2002; Blackwell, et. al. 2007; Cohen, et. al, 2006, 2007, 2010; Destin & Oyserman, 2010; Duckworth, et. al., 2013; Good, et. al. , 2003); Hulleman & Harackiewicz, 2009; Oyserman, et. al., 2002, 2006; Paunesku, et. al., 2015; Thomaes, et. al., 2009, 2012; Walton & Cohen, 2011; Walton & Logel, et. al., 2015; Yeager & Purdie-Vaughns, 2014; Yeager & Romero et. al., 2016.

Performance Matters Form 2018:

How Districts Can Use Non-Cognitive Measures to Improve Student Outcomes

What would teachers and administrators discuss that would be meaningful and helpful?

Aspects of Motivation with Growth Mindset, Schoolwork Aversion and Academic Growth												
Teacher-Class	2017 Motivation	Reading Motivation Change	Important	Self-efficacy	Effort	Enjoyment	Perseverance		Growth Mindset	Schoolwork Aversion	SBAC ELA Growth	% of Students Decreasing ELA SBAC Scale Scores < 0-1SEM
							Difficulty	Importance				
C.S. 1-1	4.21	+0.04	-0.15	+0.05	+0.10	-0.60	+0.20	+0.31	-0.05	-0.13	35.6	11%
C.S. 1-2	4.29	-0.06	0.00	-0.05	+0.24	-0.53	-0.12	+0.06	-0.06	-0.12	36.7	17%
C.S. 2-1	3.84	-0.12	-0.47	+0.06	+0.33	-0.35	-0.40	+0.21	-0.22	-0.09	18.9	27%
C.S. 2-2	3.63	-0.38	-0.53	-0.41	+0.50	-0.75	-0.56	-0.31	+0.12	-0.12	25.1	19%
C.S. 2-3	4.21	+0.06	+0.09	+0.09	-0.18	-0.45	+0.36	+0.18	+0.14	-0.25	34.8	18%
W.T. 1-1	4.07	-0.07	0.00	+0.05	-0.53	+0.15	-0.05	-0.22	-0.14	+0.14	21.6	15%
W.T. 1-2	3.97	-0.22	-0.11	-0.16	-0.41	+0.11	-0.44	-0.33	-0.33	+0.48	17.1	6%
W.T. 2-1	3.43	-0.49	-0.58	-0.33	-0.74	+0.16	-0.65	-0.75	-0.43	-0.19	11.1	20%
W.T. 2-2	3.61	-0.23	-0.63	-0.29	0.00	+0.31	-0.31	+0.00	-0.31	+0.15	21.8	13%
W.T. 2-3	3.58	-0.19	-0.67	-0.19	-0.24	0.00	-0.05	-0.28	-0.31	+0.08	9.4	26%
District Gr 7	3.84	-0.12	-0.20	-0.14	+0.04	-0.05	-0.15	-0.16	-0.18	+0.07	16.8	18%

In order to foster discussions about what classroom practices increase student motivation, teachers need both diagnostic data to identify student needs (importance, self-efficacy, effort, enjoyment) and interventions designed to address these self-beliefs.