Strong teacher-student relationships can allow students to better engage in academically and socially productive ways (Gallagher, 2013)
Lights, Camera, Data!

Greg Hroch
5-Star Students

Debbie Beagle
Vernon Hills High School
@VHStuActBeagle

Ted Goergen
Adlai E. Stevenson High School
@ted_goergen
Improved Educational Outcomes

Higher grades, better attendance, less discipline concerns, increased confidence, connectedness to school
Correlation with GPA

* Research from 3 high schools (2014/15)
Engaged students have improved academic performance.

✗ Involved students average GPA 3.53

✗ Uninvolved students average GPA 2.74
Engaged students have improved academic performance.

<table>
<thead>
<tr>
<th>Activity</th>
<th>G.P.A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performing Arts</td>
<td>3.92</td>
</tr>
<tr>
<td>Clubs/Groups</td>
<td>3.99</td>
</tr>
<tr>
<td>Athletics</td>
<td>3.71</td>
</tr>
<tr>
<td>Intramurals</td>
<td>3.64</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3.86</strong></td>
</tr>
<tr>
<td>Not Participating</td>
<td>2.93</td>
</tr>
</tbody>
</table>
Engagement and the ACT

✗ In an activity: 76% chance ACT Composite score above 26

✗ Not in an activity: 40% chance ACT score in 21-25
**CORRELATION WITH ATTENDANCE**

- Involved students missed 3 fewer days
- 8 out of 10 chronically absent students were not involved

![Average days absent for involved students: 6.7](#)  
![Average days absent for students with no activities: 9.8](#)
Engaged students have better attendance.

✗ Involved students average 6 days absent
✗ Uninvolved students average 11 days absent
CORRELATION WITH DISCIPLINE

<table>
<thead>
<tr>
<th>Number of referrals given</th>
<th>Correlation Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>to involved students</td>
<td>0.29</td>
</tr>
<tr>
<td>to uninvolved students</td>
<td>0.61</td>
</tr>
</tbody>
</table>
WHO IS AND ISN’T ENGAGED?

Not Involved Student List
Grade: All
Gender: All
Period: 2016/2017

<table>
<thead>
<tr>
<th>Last name</th>
<th>First name</th>
<th>ID</th>
<th>Grade</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albrecht</td>
<td>Ashleigh</td>
<td>1234566</td>
<td>9</td>
<td>F</td>
</tr>
<tr>
<td>Alderman</td>
<td>Armond</td>
<td>1345677</td>
<td>12</td>
<td>M</td>
</tr>
<tr>
<td>Allen</td>
<td>Rachel</td>
<td>1456788</td>
<td>11</td>
<td>F</td>
</tr>
<tr>
<td>Amado</td>
<td>Christopher</td>
<td>1579010</td>
<td>9</td>
<td>M</td>
</tr>
<tr>
<td>Anding</td>
<td>Karla</td>
<td>10243</td>
<td>11</td>
<td>F</td>
</tr>
<tr>
<td>Anyiwo</td>
<td>Fatmeh</td>
<td>2123454</td>
<td>9</td>
<td>F</td>
</tr>
<tr>
<td>Apodaca</td>
<td>Katina</td>
<td>10328</td>
<td>12</td>
<td>F</td>
</tr>
<tr>
<td>Aquil</td>
<td>Rueben</td>
<td>10871</td>
<td>9</td>
<td>M</td>
</tr>
<tr>
<td>Arekat</td>
<td>Hector</td>
<td>2234565</td>
<td>12</td>
<td>M</td>
</tr>
<tr>
<td>Arenos</td>
<td>Ariel</td>
<td>10271</td>
<td>12</td>
<td>F</td>
</tr>
<tr>
<td>Arnold</td>
<td>Joana</td>
<td>2679009</td>
<td>12</td>
<td>F</td>
</tr>
<tr>
<td>Arnold</td>
<td>Mason</td>
<td>2567898</td>
<td>9</td>
<td>M</td>
</tr>
</tbody>
</table>
RELEVANT INVOLVEMENT DATA
WHAT IS 5-STAR STUDENTS?

✗ Activities
✗ Events
✗ Behaviors
✗ Interventions
✗ Online tickets
✗ Surveys and voting
✗ Dance check in
✗ Emergency check in
FORMULA FOR SUCCESS

Track
Keep track of student involvement in school activities and events with web, mobile and barcode scanning technology

Drive
Assign point values and incentives to drive involvement

Recognize
Manage programs to encourage and recognize school involvement. Publish results on-line
KEEP TRACK OF INVOLVEMENT

“Follow the 5-point plan”

Collect student interests

Collect activities data

Gather event attendance data

Conduct feedback surveys

Compare data with other student info
WHAT ARE THEIR INTERESTS?

Interests Survey
Tell us about your interests!

1. Select your interests (check all that apply)
   - Archery
   - Art
   - Astronomy
   - Aviation/Rocketry
   - Band
   - Baseball
   - Basketball
   - Billiards
   - BMX
   - Bowling
   - Boxing
   - Cars
   - Cheerleading
   - Chess
   - Climbing
   - Color Guard
   - Computer Programming

Thank You

Based on your responses, here are some activities you might be interested in!

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseball</td>
<td>Tryouts are February 17-19</td>
<td>Coach Winters, 760-612-6085,</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="mailto:winters@domo.com">winters@domo.com</a></td>
</tr>
<tr>
<td>Art Club</td>
<td>We meet every Tuesday!</td>
<td>Mrs. Rogers, Room 203</td>
</tr>
</tbody>
</table>

Next
# ADD ACTIVITY PARTICIPANTS

### Activities - Competitive Clubs

#### Speech and Debate Club

[Edit activity](#)

<table>
<thead>
<tr>
<th>Type</th>
<th>Last name</th>
<th>First name</th>
<th>ID</th>
<th>Grade</th>
<th>Gender</th>
<th>Active</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student</td>
<td>Accola</td>
<td>Rebecca</td>
<td>456789</td>
<td>12</td>
<td>F</td>
<td>Yes</td>
</tr>
<tr>
<td>Student</td>
<td>Axon</td>
<td>Paul</td>
<td>102090</td>
<td>12</td>
<td>M</td>
<td>Yes</td>
</tr>
<tr>
<td>Student</td>
<td>Bailey</td>
<td>Amanda</td>
<td>3679008</td>
<td>11</td>
<td>F</td>
<td>Yes</td>
</tr>
<tr>
<td>Student</td>
<td>Costa</td>
<td>Marco</td>
<td>16123400</td>
<td>11</td>
<td>M</td>
<td>Yes</td>
</tr>
<tr>
<td>Student</td>
<td>Lanaso</td>
<td>Tanner</td>
<td>10182</td>
<td>11</td>
<td>M</td>
<td>Yes</td>
</tr>
<tr>
<td>Student</td>
<td>McDermott</td>
<td>Kirsten</td>
<td>47012298</td>
<td>9</td>
<td>F</td>
<td>Yes</td>
</tr>
<tr>
<td>Student</td>
<td>Pott</td>
<td>Danielle</td>
<td>58678953</td>
<td>12</td>
<td>F</td>
<td>Yes</td>
</tr>
<tr>
<td>Student</td>
<td>Rodriguez</td>
<td>Yvette</td>
<td>64001169</td>
<td>12</td>
<td>F</td>
<td>Yes</td>
</tr>
<tr>
<td>Student</td>
<td>Santi</td>
<td>Javier</td>
<td>67001166</td>
<td>9</td>
<td>M</td>
<td>Yes</td>
</tr>
</tbody>
</table>

[Add from list] [Add from IDs] [Import from file] [Import from scanner] [Qualify from events] [Remove]
Track Event Attendance

Add Event

New Event

Type: One-time
Event: Basketball vs. Jefferson
Event date: 1/12/2017
Start time: 6:47 PM
End time: 6:47 PM
Category: Sports
Related activity: None

EVENT ATTENDEE

1/12/2017 - Basketball vs. Jefferson

Manage Tickets

<table>
<thead>
<tr>
<th>Type</th>
<th>Last name</th>
<th>First name</th>
<th>ID</th>
<th>Grade</th>
<th>Gender</th>
<th>Arrived</th>
<th>Left</th>
<th>Ticket</th>
<th>Guests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student</td>
<td>Adams</td>
<td>Anna</td>
<td>10013</td>
<td>10</td>
<td>F</td>
<td>1/12/2017 6:47 PM</td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Student</td>
<td>Arpuro</td>
<td>Lisa</td>
<td>901233</td>
<td>12</td>
<td>F</td>
<td>1/12/2017 6:47 PM</td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Student</td>
<td>Ayala</td>
<td>Alex</td>
<td>10199</td>
<td>11</td>
<td>F</td>
<td>1/12/2017 6:47 PM</td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Student</td>
<td>Bailey</td>
<td>Amanda</td>
<td>3674068</td>
<td>11</td>
<td>F</td>
<td>1/12/2017 6:47 PM</td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Student</td>
<td>Baker</td>
<td>Dylan</td>
<td>4012341</td>
<td>12</td>
<td>M</td>
<td>1/12/2017 6:47 PM</td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Student</td>
<td>Bonner</td>
<td>Shelby</td>
<td>8567984</td>
<td>9</td>
<td>F</td>
<td>1/12/2017 6:47 PM</td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Student</td>
<td>Blackwelder</td>
<td>Peggy</td>
<td>10252</td>
<td>12</td>
<td>F</td>
<td>1/12/2017 6:47 PM</td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Student</td>
<td>Blanks</td>
<td>Cora</td>
<td>10004</td>
<td>10</td>
<td>M</td>
<td>1/12/2017 6:47 PM</td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Student</td>
<td>Brodersen</td>
<td>Parker</td>
<td>10340</td>
<td>12</td>
<td>M</td>
<td>1/12/2017 6:47 PM</td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Student</td>
<td>Brooks</td>
<td>Julia</td>
<td>9235558</td>
<td>9</td>
<td>F</td>
<td>1/12/2017 6:47 PM</td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Collect Feedback After Events

Dance Feedback
Please give us your feedback on the dance you attended last Friday. Your responses and suggestions will help make the next one even better!

1. How would you rate the start time of the dance?
   - Too early
   - Just right
   - Too late

2. The time it took to get into the dance was acceptable.
   - Agree
   - Disagree

3. What parts of the dance did you like?
   Check all that apply
   - Theme
   - Decorations
   - Music

Results

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. How would you rate the start time of the dance?</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Too early</td>
<td>1</td>
<td>16.67%</td>
</tr>
<tr>
<td>Just right</td>
<td>4</td>
<td>66.67%</td>
</tr>
<tr>
<td>Too late</td>
<td>1</td>
<td>16.67%</td>
</tr>
<tr>
<td><strong>2. The time it took to get into the dance was acceptable.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>4</td>
<td>66.67%</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
<td>33.33%</td>
</tr>
</tbody>
</table>
COMPARE WITH OTHER STUDENT INFORMATION

• Grades
• Test Scores
• Attendance
• Discipline
• College Admissions
What are we missing?
Things that make you go hmmm

Socio-economics

Transportation

Sense of Belonging
Dissertation findings on Student Engagement
- Narrowing the focus -

A Quantitative Study Exploring the Correlation Between Socioeconomic Status and Involvement in Extracurricular Activities
– D. Beagle

The purpose of this study was to explore the relationship between participation in cocurricular activities and sense of belonging and teacher-student relationships in high school students.
– T. Goergen
Socioeconomics

Is a student’s SES preventing them from being engaged in extracurricular activities?
We don’t know what we don’t know ...

Snapshot of demographics of student population.
Who is not engaged?

Our hispanic population makes up 14% of our student population and is our largest demographic of students not participating in extracurricular activities.
# Grade Level Engagement Distribution

<table>
<thead>
<tr>
<th>Class</th>
<th>At least 1 activity (%)</th>
<th>2 or more activities (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Freshman Class</strong></td>
<td>86.7</td>
<td>65.9</td>
</tr>
<tr>
<td><strong>Sophomore Class</strong></td>
<td>83.8</td>
<td>65.3</td>
</tr>
<tr>
<td><strong>Junior Class</strong></td>
<td>84.5</td>
<td>67.2</td>
</tr>
<tr>
<td><strong>Senior Class</strong></td>
<td>80.5</td>
<td>63.0</td>
</tr>
</tbody>
</table>
Survey Students

Gather information to guide school improvement efforts of school leaders.

Why are you not involved?
- Employment
- Family Commitment
- Financial
- Transportation
- Travel Program
- Unsure how to get involved

[Image of a survey on a smartphone]
Dissertation

Socioeconomic Status

- Hispanic
- Gender
- Seniors

Target Engagement
Research Questions:

- RQ1: What is the relationship between the SES of Hispanic students and involvement in school-based extracurricular activities?
- RQ2: What is the relationship between the SES of female students and involvement in school-based extracurricular activities?
- RQ3: What is the relationship between the SES of male students and involvement in school-based extracurricular activities?
- RQ4: What is the relationship between the SES of students in Grade 12 and involvement in school-based extracurricular activities?
Results:

✗ RQ1: Not a significant correlation between the SES of participants identified as *Hispanic* and involvement in school-based extracurricular activities.

✗ RQ2: A significant correlation between the SES of participants identified as *female* and involvement in school-based extracurricular activities.

✗ RQ3: A significant correlation between the SES of participants identified as *male* and involvement in school-based extracurricular activities.

✗ RQ4: Not a significant correlation between the SES of participants identified as students in *Grade 12* and involvement in school-based extracurricular activities.
Informed Actions:

✗ SES Literature: Financial Assistance Guide
✗ Fee Waiver Services
✗ Resources available upon request
✗ Improve Communication
✗ Counselors
✗ Parents

Next Steps:

✗ Explore correlation between Bus Routes and students not engaged in extracurricular activities.
Dissertation findings on Student Engagement
- Narrowing the focus -

A Quantitative Study Exploring the Correlation Between Socioeconomic Status and Involvement in Extracurricular Activities - D. Beagle

The purpose of this study was to explore the relationship between participation in cocurricular activities and sense of belonging and teacher-student relationships in high school students. - T. Goergen
Sense of Belonging

Are involved students more likely to feel a sense of belonging to the school community?
We’ve built high schools that...

✗ Create increased competition among students
✗ Focus on test scores
✗ Increase pressure on the college admissions process
✗ Encourage inauthentic engagement
Classroom Belonging

Based on 16,823 responses

How much students feel that they are valued members of the classroom community.

How have results changed over time?

Percent Favorable

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent Favorable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2017</td>
<td>59%</td>
</tr>
<tr>
<td>Fall 2017</td>
<td>59%</td>
</tr>
<tr>
<td>Spring 2018</td>
<td>60%</td>
</tr>
<tr>
<td>Fall 2018</td>
<td>61%</td>
</tr>
<tr>
<td>Spring 2019</td>
<td>66%</td>
</tr>
<tr>
<td>Fall 2019</td>
<td>65%</td>
</tr>
</tbody>
</table>

Classroom Belonging
Our students report experiencing:

- Academic stress
- Social stress
- Anxiety
- Depression
- Family issues
- Loneliness
Survey Students

Gather information to guide school improvement efforts of school leaders.

✗ Understood
✗ Respected
✗ Matter
✗ Connected to adults
✗ Overall belongingness
Research Questions

What degree of correlation, if any, exists between participation in school-sponsored activities and students’ sense of belonging?

What degree of correlation, if any, exists between participation in school-sponsored activities and teacher-student relationships?
Results

RQ1: There was a significant positive correlation between students’ participation in school-sponsored activities and sense of belonging (four individual items and composite score).

RQ2: Participation in activities was not significantly related to teacher-student relationships.
<table>
<thead>
<tr>
<th>Gaming Tournaments</th>
<th>Schools Got Talent</th>
<th>Car Show</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unique Speaker Series</td>
<td>Dance Lessons</td>
<td>Sidewalk Chalk Gallery</td>
</tr>
<tr>
<td>International Soccer Games</td>
<td>Crazy Decathlon</td>
<td>Cook offs</td>
</tr>
<tr>
<td>Dodgeball</td>
<td>Quiz Bowl</td>
<td>Quidditch</td>
</tr>
<tr>
<td>Fashion Shows</td>
<td>Science Competitions</td>
<td>Mini Plays</td>
</tr>
<tr>
<td>Film Festivals</td>
<td>Book Club</td>
<td>Tai Chi</td>
</tr>
<tr>
<td></td>
<td>Cooking Classes</td>
<td></td>
</tr>
</tbody>
</table>
INTERVENTION TRACKING

- Examples: tutorial period, before/after school tutoring, office hours, etc.
- Track attendance, students can access data
- Individual teacher access
- Optionally check eligibility and send invitations
POSITIVE BEHAVIORS

[Image of a screen showing a list of behaviors such as Clean Campus, Helpfulness, Kindness, Organized, Patience, and more. There's also a table displaying information about different students, including their name, type, ID, grade, and occurrences.]
TECHNOLOGY

Manager App

Online Voting

Student App

Senior Elections

Vote for your senior class officers!

1. Vote for class president

Anna Kim
I would be honored to serve as your class president and will do my best to be a voice on behalf of our awesome students. Please vote for me!

Greg Rogers
Vote for me for senior class president and I’ll make sure your voice is heard. Let’s make his year the best graduating class ever! Go Spartans!
THANK YOU!

Greg Hroch 5-Star Students
Debbie Beagle Vernon Hills High School
Ted Goergen Adlai E. Stevenson High School

@VHStuActBeagle
@ted_goergen