Student Motivation and Engagement in the Harford County Public Schools: A Snapshot

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Reviewing the Survey of Student Motivation 2008: Key Questions

• What are we measuring?
• Why are we measuring?
• How did we measure our students?
• How many students responded?
• What are our students’ perceptions about our schools and about themselves as learners?
• What themes emerged?
• What are the implications of the survey?
Learning: Our Mission as a School System

• We believe that all students can learn and that all students deserve adequate OPPORTUNITY to learn

• “Opportunity” includes clear learning goals, curriculum aligned with the goals, teachers prepared to deliver instruction in effective ways to all students, and a supportive environment for learning to take place
Student Learning: Is It Really Just About Cognition?

• We know that prior knowledge and strategies affect student learning
• We can teach students “information,” along with ways to acquire it and strategies to make it easier to acquire and remember it
• BUT
• “Cognition-only models have difficulty explaining why students who seem to have the requisite knowledge and strategies do not activate them for many school tasks . . . It seems likely that motivational components also play a role”
• Pintrich & Schrauben, 1992
Learning: It’s About the Student

• Thoughts, beliefs, and feelings determine students’ behavior in the classroom

• Current theory suggests that students
  – Set their own goals for achievement
  – Pay attention SELECTIVELY to events based on their goals
  – Engage in activities, including using strategies, that they believe will help them to attain their goals
Learning, Motivation, and Engagement: What Theory Tells us

- Learning is affected by students’ prior knowledge, skills, and perceptions about themselves, about learning, about their teachers, and about their peers.
- **Motivation** refers to the individual’s “drive” or striving to accomplish some goal based on past performance and expectation for success or failure.
- **Engagement** refers to the individual’s involvement with, investment in, or connection to an activity or task.
- Engagement is affected by motivation—how the individual feels, what the individual expects, and the value the individual attaches to the activity.
- Engagement has emotional, behavioral, and cognitive components—how the person feels, what the person does, and how and what the person thinks.
How School Affects Engagement

• Culture of RELATIONSHIPS
  – Teacher-student
    • “the most constant factor in determining the quality of school life for students” (Batten & Girling-Butcher, 1981)
  – Student-student
    • Peer-group attitudes towards school and learning
    • Respectfulness, acceptance

• Culture of LEARNING
  – Work that is meaningful, challenging, individualized, and connected to life outside school
Dimensions of School Engagement

- Productive, positive behaviors
  - Attending school
  - Participation in class
  - Involvement in school activities
  - Following school and classroom rules
  - Completing homework and class work

- Positive feelings
  - Liking for school
  - Enthusiasm for learning
  - Positive regard for classmates and adults in the school
  - Positive self-regard

- Cognitive investment
  - Application of productive learning and metacognitive strategies
  - Perseverance in the face of challenge
  - Taking challenging classes
Why Study Engagement?

• Importance
  – Supports learning
    • Increases likelihood of student perseverance and success in learning
    • Reduces disruptive behavior in the school
    • Affects learning
  – Valuable outcome
    • Helps students acquire and apply “productive habits of mind”
    • Increases likelihood that student will become a “lifelong learner”

• Malleable—affected by
  • Instruction (real-world contexts, choice, explicit teaching of strategies for accessing learning)
  • School and classroom climate
How Did We Measure Our Students: Student Motivation Survey

• Survey items designed to reflect critical features of engagement and supportive environment
• Primary, Intermediate, Middle, and High School versions created
• Brief surveys (26-30 Likert-scale-type items each) administered to students during May, 2008
• For each item, per cent selecting each response is reported for all students and disaggregated by grade level, gender, and race/ethnicity (selected grade levels)
What Do We Know About the Quality of the Instrument?

• Reliability (consistency in responses)
  – Internal consistency of instruments satisfactory for all forms

• Validity (relationship between items and definition of “engagement”)
  – Items written to address behavioral, cognitive, emotional dimensions of engagement
  – Item clusters partially supported these dimensions
  – Possible threat to validity: All items positively stated
Student Motivation Surveys: Elementary Student Participation

• K-2 Survey
  – Administered to 3,901 males and 3,397 females in 32 schools

• 3-5 Survey
  – Administered to 3,904 males and 3,741 females in 32 schools including 2,508 3rd graders, 2,630 4th graders, and 2,584 5th graders
Student Motivation Surveys—Secondary Student Participation

• 6-8 Survey
  – Administered to 2,540 males and 2,688 females in 11 schools and including 2,574 6th graders, 230 7th graders (one school only) and 2,478 8th graders

• 9-11 Survey
  – Administered to 2,222 males and 2,243 females in 11 schools and including 2,222 9th graders, 531 10th graders (two schools), and 1,727 11th graders
Primary Form: Item Clusters

• Orderly Atmosphere (14, 16, 19, 20, 21, 24)
  – My classmates pay attention to the teacher
  – My classmates and I follow the rules
  – I am learning a lot in school
  – When we are in school, my classmates and I follow the rules.

• Caring and Support (1, 2, 9, 17, 18)
  – My classmates care about each other.
  – The adults in this school care about me.
  – My teacher makes learning fun.
  – When I have trouble learning, I just try harder.

• Liking for school, learning, and teacher (3, 8, 10, 11, 13, 15)
  – I am treated fairly by my teacher.
  – I like learning being in school/learning new things at school
  – I talk to my teacher about things that bother me.
Student Motivation: Primary Form

• Most positive response: “When we are in school my classmates and I follow the rules.” (98.9% agreed)

• Least positive response: “When I try, I am able to learn.” (69% agreed)

• Average per cent agreement: 88%

• Per Cent Items with agreement >90%: 50%
Intermediate Form: Item Clusters

• Emotional and behavioral engagement with school and learning (11, 15, 18, 21, 26, 27, 28, 31, 32)
  – I like being in school.
  – I complete my homework on time.
  – My teacher tells me how well I am doing.
  – I like to work on hard problems in school.

• Orderly, respectful environment (1, 2, 3, 4, 5, 6, 8, 14, 24)
  – My classmates treat each other with respect.
  – When we are in school, we follow the rules.
  – When I am in school, I pay attention to the teacher.
  – I feel like I belong in this school.

• Relationship to teacher and learning (7, 12, 16, 23, 25)
  – My teacher treats me fairly.
  – My schoolwork is interesting to me.
  – My teacher expects me to learn and do well in school.
  – It’s important for me to get good grades in school.
Student Motivation: Intermediate Form

• Most positive response: “It’s important for me to get good grades in school.” (93.6%)
• Least positive response: “My classmates want to do well and get good grades.” (16.2% indicated “Hardly Ever or “Never”)
• Average per cent “All/Most”: 83.1%
• Per Cent Items with 90% or more responding “All/Most: 34.4%
• Per Cent Items with 25% or more responding “Sometimes/Never”: 18.8%
  – See especially 1, 11, 15, 27, 31
Middle School Form: Item Clusters (1)

• Caring, supportive, fair treatment by adults (3,5,6,10,11,21,24,32,33)
  – I am treated fairly by my teachers.
  – My teachers believe that I can learn.
  – The adults in this school listen to me.

• Productive learning behaviors (7, 12, 15, 16, 22, 28, 31)
  – I pay attention when I am in class.
  – I come to school every day.
  – I work hard in school.
  – I come to school every day prepared with materials I need.

• Cognitive engagement with learning (8, 18, 23, 25, 29, 30)
  – I like being in school.
  – I spend time studying and reading even when I don’t have a test.
  – When schoolwork is hard, I just try harder.
  – I talk to other people about what I am studying.
  – I try to connect what I am studying to what I already know.
Middle School: Item Clusters (2)

– Orderliness and Respect (1, 2, 4, 19)
  • My classmates treat each other with respect.
  • In this school, students follow the rules.
  • My classmates respect their teachers.
  • I feel safe at school.

– Comfort and acceptance by peers (9, 13, 34, 35)
  • When I am in school, I feel like I belong.
  • I have a lot of friends at school.
  • I learn best when I can work with other students.
Student Motivation: Middle School Form

• Most positive response: “It’s important for me to get good grades in school.” (78%)

• Least positive response: “I spend time studying and reading even when I don’t have a test.” (36.6% indicated “Hardly Ever or “Never”)

• Average per cent “All/Most”: 67.9%

• Per Cent Items with 90% or more responding “All/Most: 11.4% 

• Per Cent Items with 50% or more responding “Sometimes/Never”: 14.2%
High School Form: Item Clusters (1)

• Engagement with learning (12, 25, 27, 28, 30, 31, 32, 33, 36)
  – My schoolwork is interesting and exciting.
  – I spend time reading and studying even when I don’t have a test.
  – I try to connect what I am studying in class to what I already know.

• Productive learning behaviors (11, 17, 19, 23, 24, 26, 29, 34)
  – When I am in school, I follow the rules.
  – I come to school every day.
  – I work hard in school.
  – I make sure my schoolwork is correct before I hand it in.

• Sense of caring, supportive, fair treatment by adults (3, 4, 5, 10, 13, 16, 18, 21)
  – I am treated fairly by my teachers.
  – Adults in my school care about me.
  – In my classes, my teachers expect me to learn.
  – In my school, there is an adult I can count on for help.
High School Form: Item Clusters (2)

- **Orderliness and respect (1, 2, 6, 14, 15, 20)**
  - My classmates treat each other with respect.
  - Students in this school respect their teachers.
  - I feel safe at school.

- **Comfort and acceptance by peers (7, 8, 22, 35)**
  - I feel like I belong in this school.
  - I have a lot of friends at school.
  - I do a lot of activities in school.
  - I like to learn by working with other students.
Student Motivation: High School Form

- Most positive response: “It’s important for me to get good grades in school.” (64.5%)
- Least positive response: “I spend time studying and reading even when I don’t have a test.” (48.9% indicated “Hardly Ever or “Never”)
- Average per cent “All/Most”: 60.1%
- Per Cent Items with 80% or more responding “All/Most: 13.8%"
- Per Cent Items with 50% or more responding “Sometimes/Never”: 25.0%
How Can We Disaggregate Our Data?
What Can We Learn?

• By Gender
  – Which gender demonstrated a higher rate of agreement?
  – On which items was the gender gap the greatest?
  – Which items elicited the most POSITIVE response for the group in the aggregate? For each gender?
  – What patterns do you see (look at the item clusters)?
  – Do those patterns correspond with—or are they at odds with—what you already know?
Selected Gender Patterns (1)

• PRIMARY Survey
  – Significant gender differences on nearly all items and all favoring females
  – The biggest gender difference—about 10%—occurred on the item “I like being in school”
Selected Gender Patterns (2)

• INTERMEDIATE Survey
  – Significant gender differences on 26 of 32 items
  – Girls’ “All/Almost all” responses exceeded boys’ by at least 5% on items 7 (pay attention to teachers), 16 (I work hard in school), 5 (When we are in school, we follow the rules), 11 (I like being in school), 14 (I feel like I belong in school), 18 (When I need help, I go to my teacher), 19 (I know what to do when I don’t understand what I am learning), 21 (I think I am learning a lot in school), 23 (I complete my homework on time), 27 (I like to talk with my family . . . About what I am learning in school).
  – Boys’ “All/almost all” response exceeded girls’ by at least 5% on item 31 (I like to work on hard problems in school).
Selected Gender Patterns (3)

• MIDDLE SCHOOL Survey
  – Statistically significant differences between males and females on all items except for 1, 2, 4, 11, 23, 26, 30, and 34
  – Females’ responses were more positive (by 5%) than males for items 7 (I pay attention in class), 13 (I have a lot of friends at school), 14 (I check to make sure my work is correct before I hand it in), 15 (It’s important to get good grades in school), 16 (I believe that I can learn and do well in school), 22 (I work hard in school), 27 (I am bored in school), 28 (It’s important for me to get good grades), and 31 (I come to my classes prepared).
Selected Gender Patterns (4)

• HIGH SCHOOL SURVEY
  – There were statistically significant differences between males and females on all items except for 1, 2, 6, 7, 8, 12, 17, 22, 28, 30, 32, and 33
  – Females’ responses were more positive (by 5%) than males on items 11 (When I am in school, I follow the rules), 16 (In my classes, my teachers expect me to learn), 23 (It is important for me to get good grades and do well in school), 24 (I work hard in school), and 26 (I complete my homework on time).
Other Patterns

• In general, students’ responses to survey items were less positive as grade level increased
• Preliminary analyses of disaggregated race/ethnicity responses did not suggest major differences
Per Cent “Always”/”Mostly” Responses to Selected Items Across Surveys

I like school
I feel safe
I work hard
Grades matter

- Intermed
- Middle
- High
Per Cent “Always”/”Mostly” Responses to Selected High School Items Across Race

- I am fairly treated
- I feel I belong
- I follow the rules
- I am challenged to think

- White
- AfricanAm
- Hispanic
Top 10: Primary Survey Items

• HIGHEST AGREEMENT
  – My teacher expects me to learn and do well
  – When I try, I can learn
  – I work hard so I can do well in school
  – I am learning a lot in school
  – I am treated fairly by my teacher

• HIGHEST DISAGREEMENT
  – I learn best when we are allowed to talk and move around
  – My classmates pay attention to the teacher
  – I come to school every day
  – I learn best when I can touch or move things around
  – My teacher expects me to learn and do well
Top 10 Intermediate Survey Items

• HIGHEST AGREEMENT
  – It is important for me to get good grades in school
  – My teacher expects me to learn and do well
  – I work hard in school
  – When I try hard, I can learn
  – The adults in my school care about me

• HIGHEST DISAGREEMENT
  – My schoolwork is interesting to me
  – I like to talk with my family about what I am learning
  – I like being in school
  – I like to work on hard problems in school
  – I learn best when we can talk and move about the classroom
Top 10
Middle School Survey Items

• Highest Agreement
  – I come to school every day.
  – It is important for me to get good grades.
  – My teachers believe that I can learn
  – I have a lot of friends at school
  – I believe I can learn and do well in school.

• Highest Disagreement
  – I spend time studying and reading even when I don’t have a test.
  – In this school, students follow the rules.
  – I like working on hard problems at school.
  – I talk to other people about what I am studying in school.
  – I like being in school.
Top 10
High School Survey Items

• HIGHEST AGREEMENT
  – It is important for me to get good grades
  – I go to school every day
  – I believe I can learn and do well in school.
  – I have a lot of friends at school.
  – In my classes, teachers expect me to learn.

• HIGHEST DISAGREEMENT
  – My schoolwork is interesting and exciting
  – In this school, students respect their teachers.
  – Students in this school follow the rules.
  – I spend time studying and reading when I don’t have a test.
  – I talk to other people about what I am learning in school.
Themes (1)

• Student responses increasingly less positive with increasing grade level
• Girls are generally more positive than boys on all items but especially on “liking for school” and especially in the middle grades
• White and Asian students are generally more positive than African American and Hispanic students on all items
• Importance of “good grades” relatively high for all grade levels
• Emotional engagement declines with age: The proportion of students who say they “like” being in school drops off significantly from primary (83%) to high school (only 38% “like” school at least “most of the time”); the proportion of students who say they “belong” in their school falls from 90% (primary) to 67% (grade 11)
Themes (2)

• Behavioral engagement declines with age: The proportion of students who say they “follow the rules” drops from 88% (primary grades) to high school (32% of 11th graders say students in their school “follow the rules”)

• Cognitive engagement is more ambiguous
  • 96% Primary grade students say they are “learning a lot”
  • 57% High School students say they are “learning a lot”
  • 70% Primary grade students say they “pay attention to the teacher”
  • 70% High school students say they “pay attention in class” at least “most of the time”
  • 70% High school students say they are “challenged to think and solve problems” at least “most of the time”
Themes (3)

• Race differences in engagement seem to cluster around concepts of safety and caring
• Race-ethnic group differences of 10% or more include
  – “I feel safe at school” (Elem/Middle/High)
  – “I feel like I belong at my school” (Elem/High)
  – “Adults in my school listen to me” (Middle/High)
  – “I pay attention in school/class” (Elem, High)
  – “Students are treated fairly by teachers/administrators” (Elem/Middle/High)
Implications/Next Steps

• Building upon summer training sessions, School Leadership Teams with assistance from central office staff engage in intensive review of results at school level, examination of relevant research, encouragement of action research projects

• Additional data collection using qualitative methods (for example, focus groups, interviews, etc.)

• Additional data analysis (for example, additional disaggregations, looking at clusters of schools, etc.)
Implications (2)

• Review research concerning how school practices, organization and culture can be modified to enhance student engagement—for example
  – Professional development
  – “Professional learning community”
  – Parent involvement
  – Safe, orderly school environment
  – Instruction and assessment
  – Arrangement of learning time
  – How students and their achievements are recognized