



SEI – Systems Level Measurement and Intervention



GCPS - Research & Evaluation

University of Georgia

October 7, 2015



Background

- Check & Connect Mentor
- Student Engagement Instrument (SEI)
- Measurement and Application Research

- 25 years...
 - 13 years ago as mentor...
 - 9 years ago (SEI)...



Agenda

- **Check & Connect theory and the SEI**
 - Research undertaken and results
 - <http://checkandconnect.umn.edu/research/engagement.html>
- **Lessons learned**
 - Efficient movement of *data* to *information*
 - Stakeholder support
- **Predicting long-term outcomes**
 - Bivariate
 - Multivariate, multi-level

3



Check & Connect Theory and the SEI

- **Check & Connect theory and the SEI**
 - Research undertaken and results
 - <http://checkandconnect.umn.edu/research/engagement.html>



The Institute's research-based intervention model to increase student engagement at school and with learning

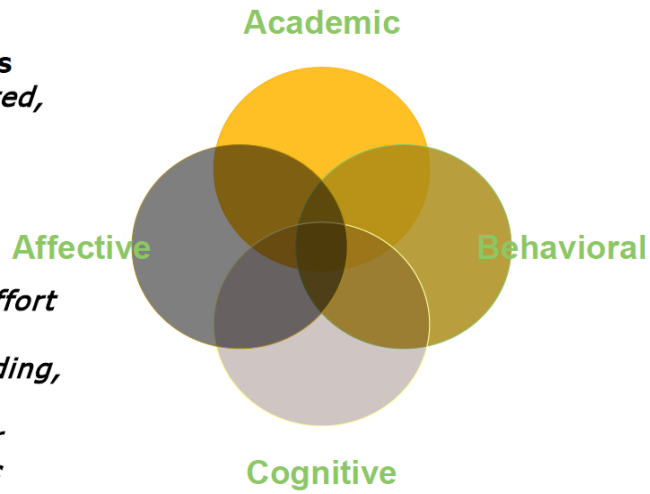
4



Engagement Theory

4 subtypes

- **Antidote to: students characterized as *bored, unmotivated, and uninvolved***
- **"the student's psychological investment in and effort directed toward learning, understanding, or mastering the knowledge, skills, or crafts that academic work is intended to promote"**
- **"Energy in action, the connection between person and activity"**



Dropping out is the most extreme form of disengagement

Christenson & Anderson, 2002;
Newmann, 1992; Russell et al., 2005



student engagement instrument (SEI) manual

Table 1: SEI Samples and Fit Statistics

Sample Characteristics	CFA Fit Statistics
(A) N = 418 (SC - U.S.) N = 1,998 (MN - U.S.) 6th - 12th grade students > 300 students/ grade 50.5% female 86% White, < 2% English Learners	1) Configural = 6,081.53, df = 3,346, p < .001; BIC = 131,670; CFI = 0.91; RMSEA = 0.05 = 6,419.69, df = 3,520, p < .001; BIC = 130,670; CFI = 0.91; RMSEA = 0.05 2) Metric = 6,906.03, df = 3,718, p < .001; BIC = 129,633; CFI = 0.90; RMSEA = 0.05 = 7,026.03, df = 3,778, p < .001; BIC = 129,291; CFI = 0.90; RMSEA = 0.05 3) Equal Residuals 4) Equal Covariances
(B) N = 44,078 - Southeastern U.S. 6th - 9th grade students 49.4% female 34.9% White, 27.1% Black, 22.8% Hispanic, 10.6% Asian, 4.6% Other 11.7% SPED services 42.4% eligible for free/reduced price lunch	N = 880 per group: 1) Special Ed. = 2,332.46, df = 485; CFI = 0.96; SRMR = 0.52; RMSEA = 0.067 = 2,466.93, df = 485; CFI = 0.97; SRMR = 0.53; RMSEA = 0.069 2) EBD/SLD = 2,762.31, df = 485; CFI = 0.95; SRMR = 0.64; RMSEA = 0.075 = 2,852.77, df = 485; CFI = 0.95; SRMR = 0.65; RMSEA = 0.076 3) Low Achievement = 2,632.63, df = 485; CFI = 0.95; SRMR = 0.64; RMSEA = 0.075 4) Office Referrals = 3,131.02, df = 485; CFI = 0.95; SRMR = 0.60; RMSEA = 0.078 = 2,647.34, df = 485; CFI = 0.95; SRMR = 0.59; RMSEA = 0.072 5) Dropout/Alt. School 6) English Learner
(C) N = 2,495 - Finland 12-17 years of age 52.3% female Regular education school	7) Free Lunch 1) First order 1) $\chi^2 = 1,669.81$, df = 391; CFI = 0.95; RMSEA = 0.05 2) Second order 2) $\chi^2 = 1,971.59$, df = 395; CFI = 0.94; RMSEA = 0.05
(D) N = 1,528 - Portugal 12-21 years of age 51.8% female 77.9% Regular education school 22.1% vocational school	1) First order 1) $\chi^2 = 1,271.25$, df = 356; CFI = 0.92; RMSEA = 0.04 2) Second order 2) $\chi^2 = 1,555.33$, df = 364; CFI = 0.90; RMSEA = 0.04



Table 2: SEI Samples (continued), Reliability Estimates, and Conclusions

Sample Characteristics	Reliability	Conclusions	Citation
(A) N = 418 (SC - U.S.) N = 1,998 (MN - U.S.) 6th - 12th grade students > 300 students/ grade 50.5% female 86% White, < 2% English Learners	Raykov: 0.70 - 0.80	Evidence of invariance of the SEI factor structure across grades and gender	Betts et al., 2010
(B) N = 44,078 - Southeastern U.S. 6th - 9th grade students 49.4% female 34.9% White, 27.1% Black, 22.8% Hispanic, 10.6% Asian, 4.6% Other 11.7% SPED services 42.4% eligible for free/reduced lunch	Coefficient Alpha: 0.75 - 0.87	Evidence for the fit of the specified SEI factor structure to numerous subgroups of interest particularly in terms of those for whom engagement may be especially important	Lovelace et al., 2013a
(C) N = 2,495 - Finland 12-17 years of age 52.3% female Regular education school	Coefficient Alpha: 0.78 - 0.92	General evidence of cross-cultural stability of SEI factor structure*	Virtanen, Moreira, Dias, Oliveira, & Kuorelahti, 2013
(D) N = 1,528 - Portugal 12-21 years of age 51.8% female 77.9% Regular education school 22.1% vocational school	Coefficient Alpha: 0.59, 0.69 - 0.89	General evidence of cross-cultural stability of SEI factor structure*	Virtanen, Moreira, Dias, Oliveira, & Kuorelahti, 2013

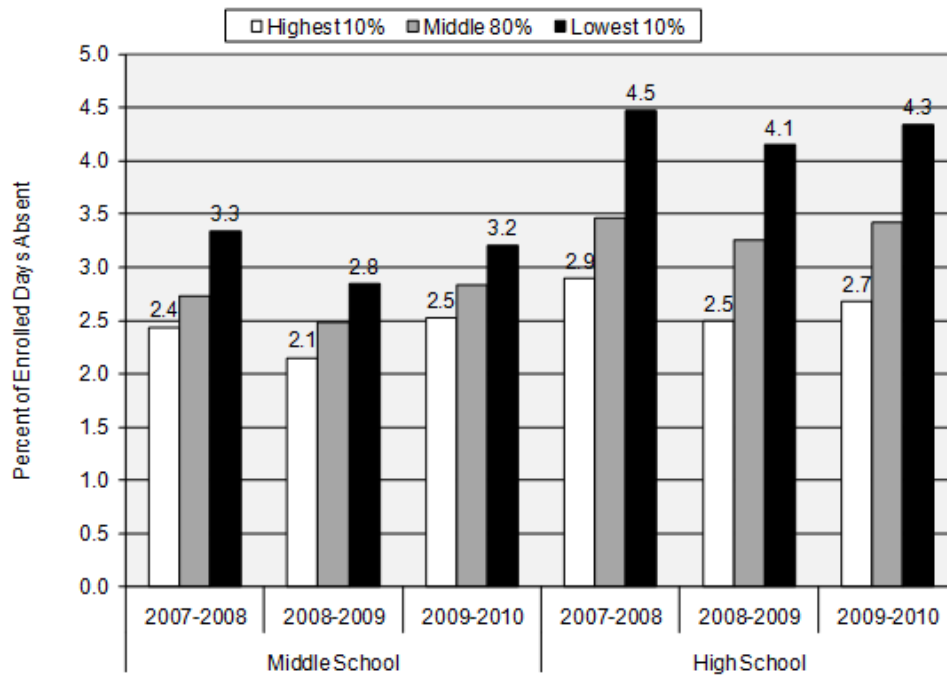


Figure 3. 2007-08 through 2009-10 percent of enrolled days absent by SEI group percentile for each academic year.

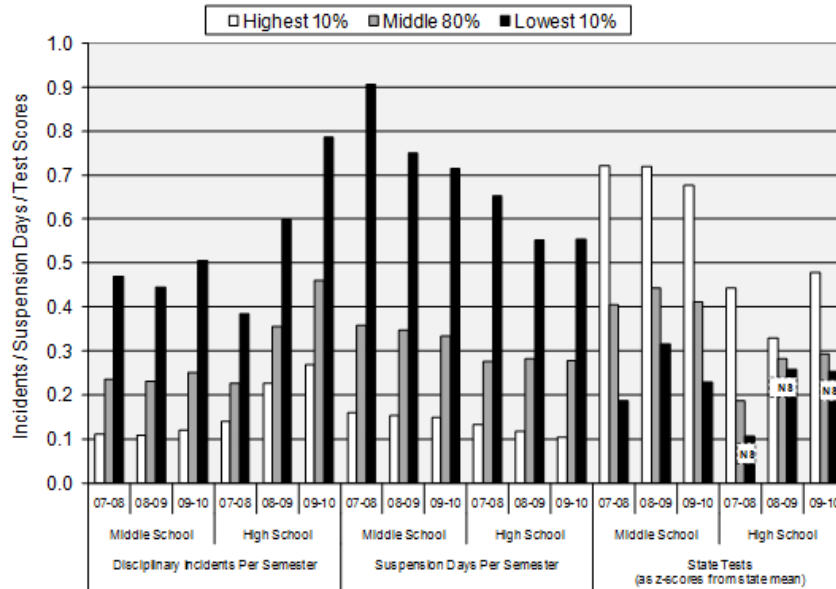


Figure 4. 2007-08 through 2009-10 comparison of disciplinary incidents, suspension days, and CRCT and GHSGT standardized scores by school level and SEI group percentile for each academic year.



Lessons Learned

- Lessons learned
 - Efficient movement of *data* to *information*
 - Stakeholder support

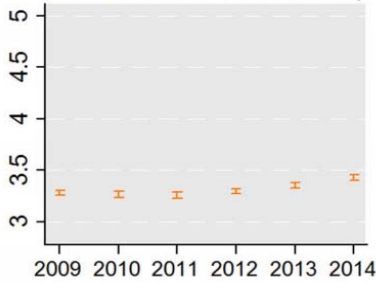
Meaning and Access

<http://bcove.me/jbwcoubh>



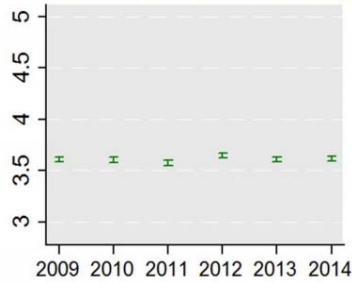


Teacher-Student Relationships

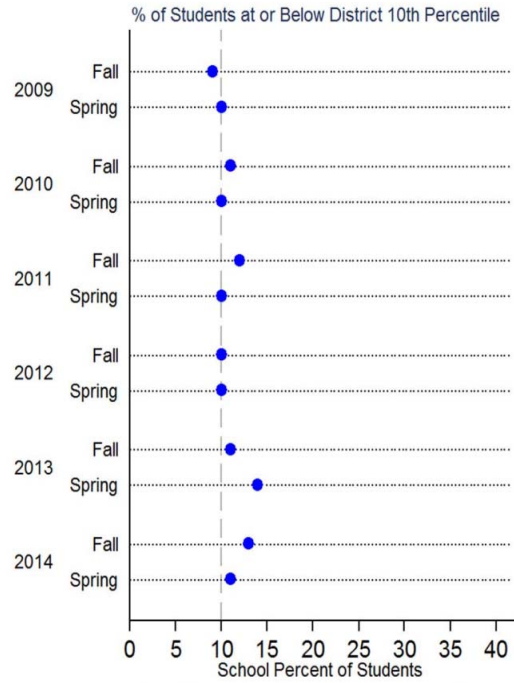


Reports

Control/Relevance of Schoolwork



Class Grades		Student Info		SEI			
Permnum	Student	12-01	11-24	11-17	11-10		
2	0 C	I	49.00	49.00	49.00	34.00	



Note: District 10th percentile is determined by level (ES, MS, HS), season (fall or spring), and year.



From...

Figure 1 · Monitoring Sheet [top half]

Month _____ Student _____ ID _____
 School _____ Monitor _____

Check	M		Tu		W		Th		F		M		Tu		W		Th		F		M		Tu		W		Th		F		High risk status for monitor
	M	Tu	W	Th	F	M	Tu	W	Th	F	M	Tu	W	Th	F	M	Tu	W	Th	F	M	Tu	W	Th	F	M	Tu	W	Th	F	
Tardy	✓	✓				✓	✓							✓	✓															✓	
Skip																															
Absent														✓																	
Behavior referral																															
Detention																															
In-school suspension																															
Out-of-school suspension														✓	✓															✓	
Failing classes/Behind in credits	.0 D's		.0 F's		.7		Classes passed out of		.7		total		Credits earned out of		total																

To...



Discipline Index

Behavior Rate (YTD)

B	ISS Days	OSS Days
	0	4

Current Year

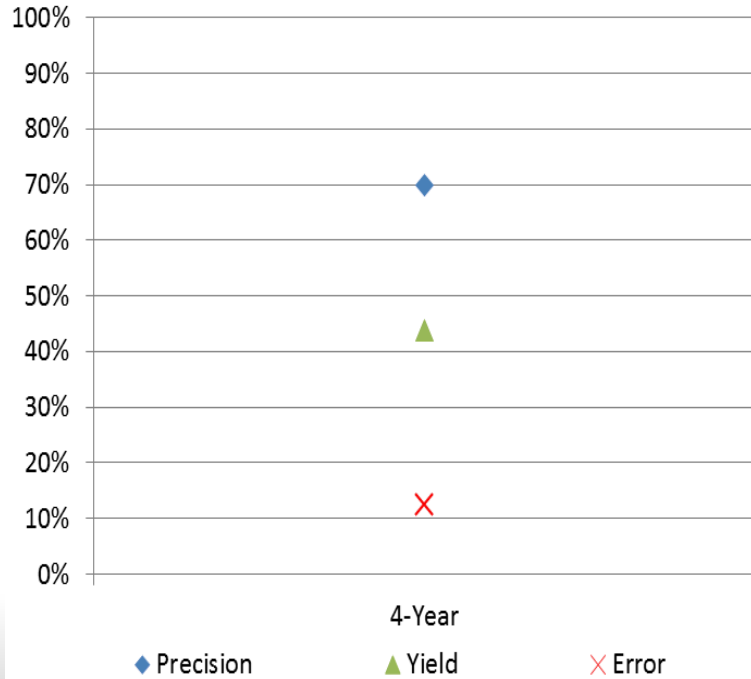
Discipline Index?
75 - 100

2014-15

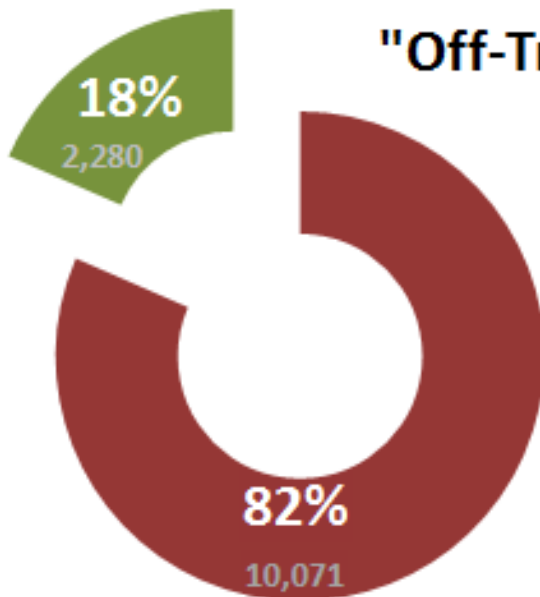
ISS Days	OSS Days	Discipline Index?
16	4	75 - 100

[Discipline Report](#) →

Relationship Between Being in Top 25% of Discipline Concern Index in 9th Grade and Failure to Graduate On-Time:



What happens to students "Off-Track" after 9th Grade

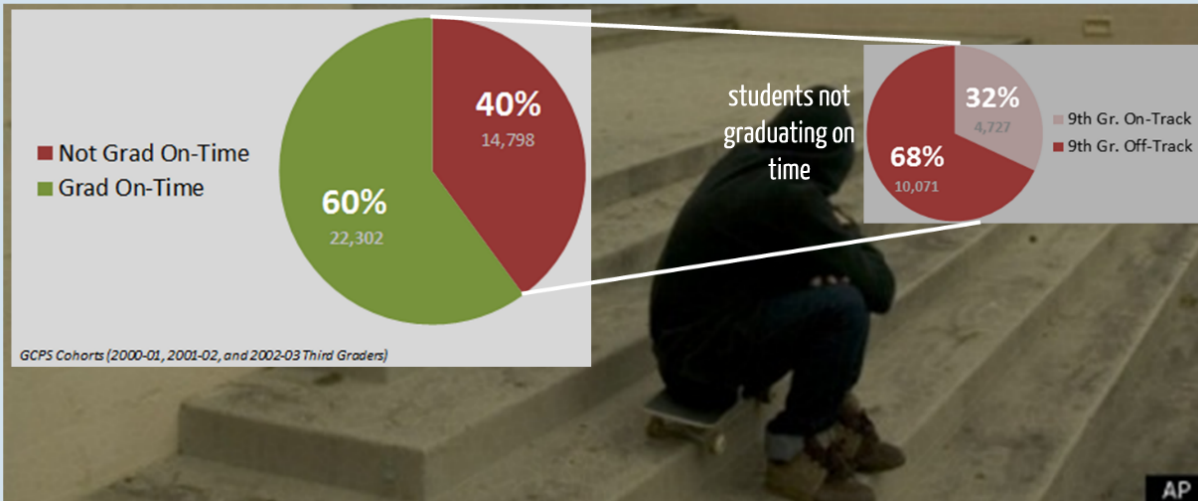


...8 out of 10 don't graduate on time

- Not Grad On-Time
- Grad On-Time

GCPs Cohorts (2000-01, 2001-02, and 2002-03 Third Graders)

"Off-Track" 9th graders represent a large portion of all students failing to graduate on time



...and we knew in 9th grade!!

RISK STATUS

NO RISK

Student is not at risk of being off track for on-time graduation on this risk factor

BUBBLE

Students are on the threshold of the criteria for the risk factor

AT RISK

Student has one or more A,B,C. Student is very likely off track toward on-time graduation

AT RISK INTENSITY



ABC Analytics

https://publish.gwinnett.k12.ga.us/gcps/myhome/main/site/mystudents/studataanalysis/abcreportschool

ABC Report (A) Attendance, (B) Behavior, (C) Course Performance Data as of Oct 28, 2013

School Name: _____ Faculty Name: _____

Please Select a Class: _____ [Advanced filtering](#)

Number of Distinct Students by Risk Category (YTD)

- At ABC Risk: 4 (36%)
- Bubble: 3 (27%)
- No ABC Risk: 4 (36%)

Graduation Assessment Requirements (GAR)

ABC Risk Indicators

	At ABC Risk	Bubble	No ABC Risk
Attendance	1	2	7
Behavior	1	0	10
Course Performance	4	3	4

Monthly Students Summary | [Student Details](#)

Risk Scale: 0 Risks 1 Risk 2 Risks 3 Risks [Output to Excel](#)

YTD	Student	Nov	Dec	Jan	Feb	Mar	Apr	May	Last Year	Aug	Sep	Oct	GAR
AC	[Student]	AC	AC	A	AC	A	AC	A	AC	AC	C	AC	[Indicator]
BC	[Student]	C	C		C	C	C	C				BC	[Indicator]
C	[Student]										C	C	[Indicator]
C	[Student]		A	A			A	A	A	A	C	C	[Indicator]
	[Student]	C	C		AC	C	C	C	C				[Indicator]
	[Student]	C	ABC	A	AC	AC	ABC	C	ABC				[Indicator]
	[Student]			A	C	C	C	C	C	A			[Indicator]
	[Student]												[Indicator]
	[Student]					B	B		B				[Indicator]
	[Student]	AC	AC		C	C	AC	AC	C				SPED

Missing Requirements Requirements Met

ABC Analytics

https://publish.gwinnett.k12.ga.us/gcps/myhome/main/site/mystudents/studataanalysis/abcreportschool

ABC Report (A) Attendance, (B) Behavior, (C) Course Performance Data as of Oct 28, 2013

School Name: _____ Faculty Name: _____

Please Select a Class: _____ [Advanced filtering](#)

Grade (All) Cohort (All) Ethnicity (All) Gender (All) EL (All) SPED Primary Area (All)

FR Lunch (All) SST Promotion (All) Retained Ever (All) S04 (All)

Submit

Number of Distinct Students by Risk Category (YTD)

- At ABC Risk: 4 (36%)
- Bubble: 3 (27%)
- No ABC Risk: 4 (36%)

Graduation Assessment Requirements (GAR)

ABC Risk Indicators

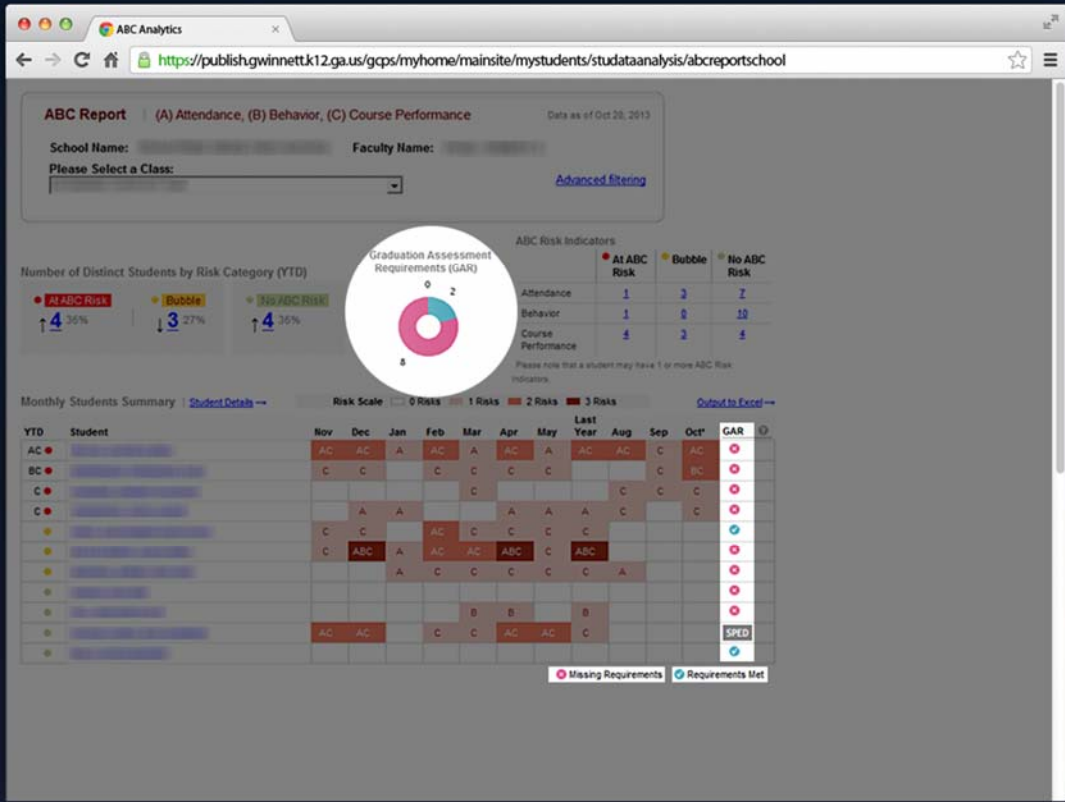
	At ABC Risk	Bubble	No ABC Risk
Attendance	1	2	7
Behavior	1	0	10
Course Performance	4	3	4

Monthly Students Summary | [Student Details](#)

Risk Scale: 0 Risks 1 Risk 2 Risks 3 Risks [Output to Excel](#)

YTD	Student	Nov	Dec	Jan	Feb	Mar	Apr	May	Last Year	Aug	Sep	Oct	GAR
AC	[Student]	AC	AC	A	AC	A	AC	A	AC	AC	C	AC	[Indicator]
BC	[Student]	C	C		C	C	C	C				BC	[Indicator]
C	[Student]										C	C	[Indicator]
C	[Student]		A	A			A	A	A	A	C	C	[Indicator]
	[Student]	C	C		AC	C	C	C	C				[Indicator]
	[Student]	C	ABC	A	AC	AC	ABC	C	ABC				[Indicator]
	[Student]			A	C	C	C	C	C	A			[Indicator]
	[Student]												[Indicator]
	[Student]					B	B		B				[Indicator]
	[Student]	AC	AC		C	C	AC	AC	C				SPED

Missing Requirements Requirements Met



ABC Analytics

https://publish.gwinnett.k12.ga.us/gcps/myhome/main/site/mystudents/studataanalysis/abcreportschool

ABC Student Detail Report (A) Attendance, (B) Behavior, (C) Course Performance

[Expand](#) | [Collapse All](#)

Student	Attendance Rate (YTD)	Behavior Rate (YTD)	Course Performance (Monthly Student Average)
200202913 M Hispanic Gr 9 [Risk] [Mod] [Accom] [SP] [Seals]	Attendance Rate (YTD) Days Absent 14% (3 days)	Behavior Rate (YTD) ISS Days OSS Days 0 0	Course Performance (Monthly Student Average) Language Arts Math Science Social Studies C -- 68 --
200202746 M Hispanic Gr 11 [Risk] [Mod] [Accom] [SP] [Seals]	Attendance Rate (YTD) Days Absent 7% (4 days)	Behavior Rate (YTD) ISS Days OSS Days 3 2	Course Performance (Monthly Student Average) Language Arts Math Science Social Studies C 25 51 -- --
200202709 M Multiracial Gr 9 [Risk] [Mod] [Accom] [SP] [Seals]	Attendance Rate (YTD) Days Absent 4% (2 days)	Behavior Rate (YTD) ISS Days OSS Days 0 0	Course Performance (Monthly Student Average) Language Arts Math Science Social Studies C 67 -- -- --
200202944 M Black Gr 9 [Risk] [Mod] [Accom] [SP] [Seals]	Attendance Rate (YTD) Days Absent 5% (3 days)	Behavior Rate (YTD) ISS Days OSS Days 0 0	Course Performance (Monthly Student Average) Language Arts Math Science Social Studies C -- 70 69 --
200204175 M Asian/Pacific Islander Gr 12 [Risk] [Mod] [Seals]	Attendance Rate (YTD) Days Absent 4% (2 days)	Behavior Rate (YTD) ISS Days OSS Days 0 0	Course Performance (Monthly Student Average) Language Arts Math Science Social Studies -- 66 88 --
200142036 M Hispanic Gr 11 [Risk] [Mod] [Accom] [SP] [Seals]	Attendance Rate (YTD) Days Absent 10% (5 days)	Behavior Rate (YTD) ISS Days OSS Days 0 0	Course Performance (Monthly Student Average) Language Arts Math Science Social Studies -- 49 -- -- --
200202812 M Black Gr 10 [Risk] [Mod] [Seals]	Attendance Rate (YTD) Days Absent 7% (4 days)	Behavior Rate (YTD) ISS Days OSS Days 0 0	Course Performance (Monthly Student Average) Language Arts Math Science Social Studies -- 55 -- 77
200147920 M Asian/Pacific Islander Gr 11 [Risk] [Mod] [Accom] [SP] [Seals]	Attendance Rate (YTD) Days Absent 0% (0 days)	Behavior Rate (YTD) ISS Days OSS Days 0 0	Course Performance (Monthly Student Average) Language Arts Math Science Social Studies C 79 -- 76 --
200178700 M White Gr 11 [Risk] [Mod] [Seals]	Attendance Rate (YTD) Days Absent 0% (0 days)	Behavior Rate (YTD) ISS Days OSS Days 0 0	Course Performance (Monthly Student Average) Language Arts Math Science Social Studies C 74 -- 85 --

ABC Analytics

https://publish.gwinnett.k12.ga.us/gcps/myhome/main/site/mystudents/studataanalysis/abcreportschool

ABC Student Detail Report (A) Attendance, (B) Behavior, (C) Course Performance

Expand | Collapse All

Student ID	Grade	Ethnicity	Attendance Rate (YTD)	Days Absent	Behavior Rate (YTD)	ISS Days	OSS Days	Course Performance (Weekly Gradebook Average)	Language Arts	Math	Science	Social Studies
200202093	Grd 9	Hispanic	A	14% (8 days)	B	0	0	C	--	--	68	--
200357146	Grd 11	Hispanic	A	7% (4 days)	B	3	2	C	25	51	--	--
200200709	Grd 9	Multiracial	A	4% (2 days)	B	0	0	C	67	--	--	--
200204175	Grd 12	Asian/Pacific Islander	A	4% (2 days)	B	0	0	C	--	66	88	--
200143836	Grd 11	Hispanic	A	32% (18 days)	B	0	0	C	49	--	--	--
200200312	Grd 10	Black	B	7% (4 days)	B	0	0	C	--	55	--	77
200170130	Grd 11	Asian/Pacific Islander	A	0% (0 days)	B	0	0	C	79	--	76	--
200170190	Grd 11	White	A	0% (0 days)	B	0	0	C	74	--	83	--

ABC Analytics

https://publish.gwinnett.k12.ga.us/gcps/myhome/main/site/mystudents/studataanalysis/abcreportschool

ABC Student Detail Report (A) Attendance, (B) Behavior, (C) Course Performance

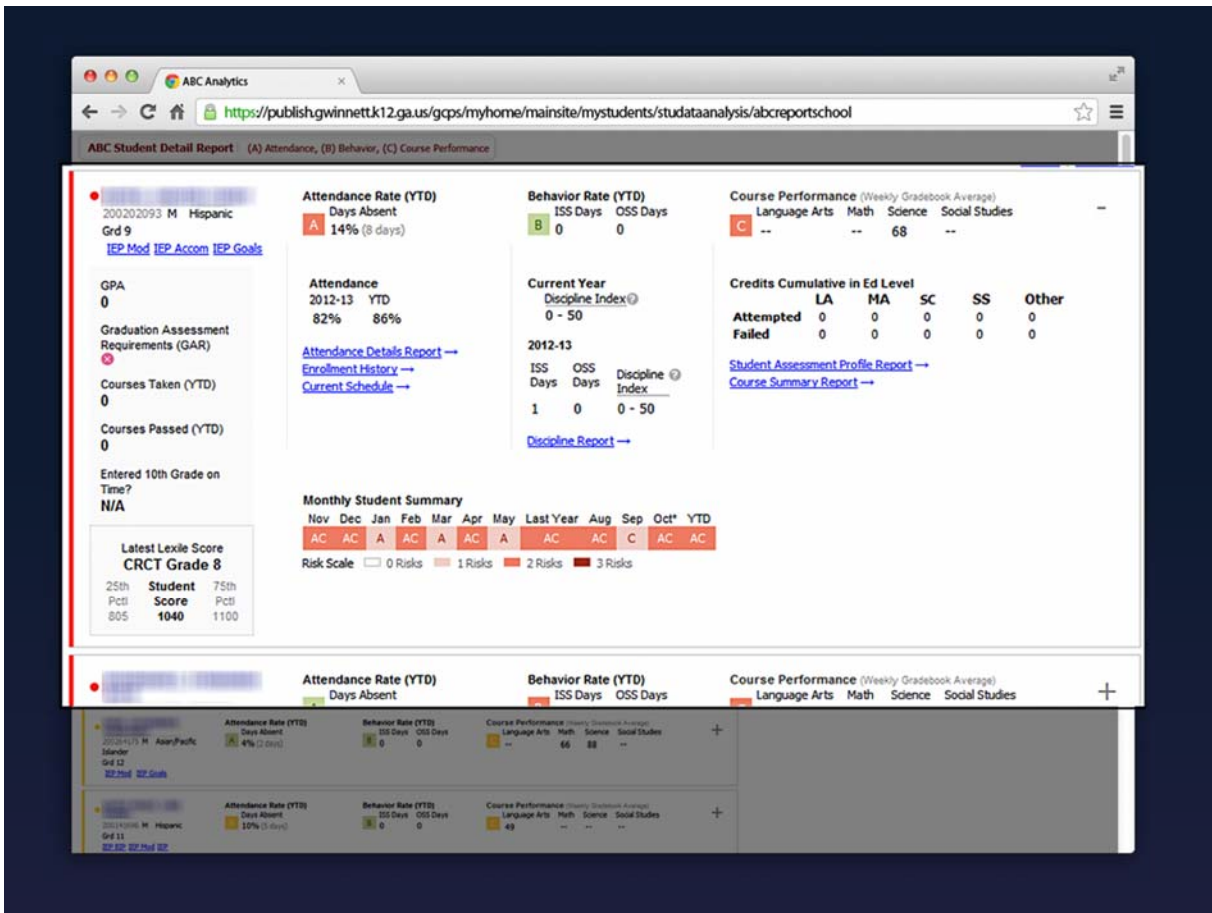
Expand | Collapse All

Student ID	Grade	Ethnicity	Attendance Rate (YTD)	Days Absent	Behavior Rate (YTD)	ISS Days	OSS Days	Course Performance (Weekly Gradebook Average)	Language Arts	Math	Science	Social Studies
200202093	Grd 9	Hispanic	A	14% (8 days)	B	0	0	C	--	--	68	--
200357146	Grd 11	Hispanic	A	7% (4 days)	B	3	2	C	25	51	--	--
200200709	Grd 9	Multiracial	A	4% (2 days)	B	0	0	C	67	--	--	--
200200914	Grd 9	Black	B	5% (3 days)	B	0	0	C	--	70	69	--
200204175	Grd 12	Asian/Pacific Islander	A	4% (2 days)	B	0	0	C	--	66	88	--
200143836	Grd 11	Hispanic	B	32% (18 days)	B	0	0	C	49	--	--	--

200202093 Student Detail:
 GPA: 0
 Graduation Assessment Requirements (GAR): 0
 Courses Taken (YTD): 0
 Courses Passed (YTD): 0
 Entered 10th Grade on Time? N/A
 Latest Lexia Score: CRCT Grade 8
 250 Student Score 750
 805 1040 1100

200357146 Student Detail:
 Attendance: 2012-13 YTD 82% 86%
 Current Year Discipline Index: 0-50
 2012-13 ISS Days 1, OSS Days 0, Discipline Index 0-50

200200709 Student Detail:
 Credits Cumulative in Ed Level:
 Attempted: LA 0, MA 0, SC 0, SS 0, Other 0
 Failed: LA 0, MA 0, SC 0, SS 0, Other 0



Single MS Student View

[Expand](#) | [Collapse All](#)

● **STUDENT 5**

2 M Black
 Grd 7

GPA: 0

Promotion Requirements:

Courses Taken (YTD): 8

Courses Passed (YTD): 8

Latest Lexile Score
CRCT Grade 7

25th Pctl	75th Pctl	Student Score
735	1065	1095

Attendance Rate (YTD)
 Days Absent: 4% (7 days) (A)

Attendance
 2011-12 YTD: 96% 96%

[Attendance Details Report](#)
[Enrollment History](#)
[Current Schedule](#)

Behavior Rate (YTD)
 ISS Days: 2, OSS Days: 2 (B)

Current Year
 Conduct Grade: N, Discipline Index: 50 - 75

2011-12
 ISS Days: 5, OSS Days: 0, Conduct Grade: S, Discipline Index: 50 - 75

[Discipline Report](#)

Course Performance (Weekly Gradebook Average)
 Language Arts: 76, Math: 72 (C)

Credits Cumulative in Ed Level

	LA	MA	SC	SS	Other
Attempted	0.5	0.5	0.5	0.5	1
Failed	0	0	0	0	0

[Student Assessment Profile Report](#)

Monthly Student Summary

Last Year	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May*	YTD
		AB				A	C	AC			B

Risk Scale: 0 Risks, 1 Risks, 2 Risks, 3 Risks

Single MS Student View - Perceptions

[Expand](#) | [Collapse All](#)

Click into Student Profile for this student

STUDENT 5

2 M Black
Grd 7

GPA: 0

Promotion Requirements:

Courses Taken (YTD): 8

Courses Passed (YTD): 8

Attendance Rate (YTD)
Days Absent: 4% (7 days)

Behavior Rate (YTD)
ISS Days: 2, OSS Days: 2

Course Performance (Weekly Gradebook Average)
Language Arts: 76, Math: 72

Credits Cumulative in Ed Level

	LA	MA	SC	SS	Other
Attempted	0.5	0.5	0.5	0.5	1
Failed	0	0	0	0	0

Current Year Conduct Grade: N, Discipline Index: 50 - 75

2011-12 ISS Days: 5, OSS Days: 0, Conduct Grade: S, Discipline Index: 50 - 75

[Attendance Details Report](#) →
[Enrollment History](#) →
[Current Schedule](#) →
[Discipline Report](#) →

[Student Assessment Profile Report](#) →

Click into Assessment tab for SEI data

TeacherView ClassView **Dashboard** Course History Attendance Discipline **Assessment**

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Single MS Student View - 3Cs

Student Engagement Instrument (SEI) - District-Referenced Student Percentile

Teacher-Student Relationships

Year	2011-F	2012-F	2013-S
Percentile	45	5	1

Control/Relevance of Schoolwork

Year	2011-F	2012-F	2013-S
Percentile	66	60	6

Peer Support at School

Year	2011-F	2012-F	2013-S
Percentile	97	86	52

Future Aspirations/Goals

Year	2011-F	2012-F	2013-S
Percentile	81	81	76

Family Support for Learning

Year	2011-F	2012-F	2013-S
Percentile	52	85	42

Intrinsic Motivation

Year	2011-F	2012-F	2013-S
Percentile	87	72	85

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Admin View

Student Data Analysis » ABC Report - School SLDS DSR

Getting started... View additional resources +

ABC Report - School (A) Attendance, (B) Behavior, (C) Course Performance Data as of May 29, 2013

Please Select a School:
HIGH

Number of Students by Risk Category (YTD)



ABC Risk Indicators

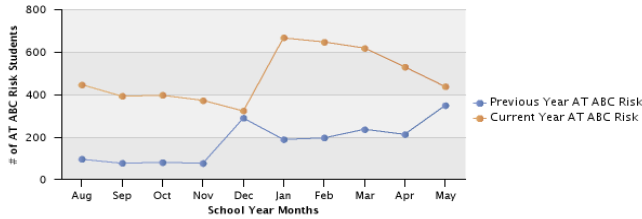
	At ABC Risk	Bubble	No ABC Risk
Attendance	71	258	1,732
Behavior	68	178	1,815
Course Performance	268	355	1,438

Please note that a student may have 1 or more ABC Risk Indicators.

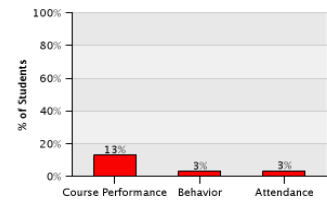
Grade Faculty

Monthly Breakdown of Students at ABC Risk

At ABC risk students totals are cumulative for each month



% of Total Students, At ABC Risk



Missing Graduation Test Requirements by ABC Risk Status



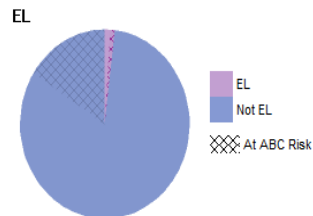
Admin View

Grade (All) Cohort (All) Submit

Number of Students by Risk Category (YTD)



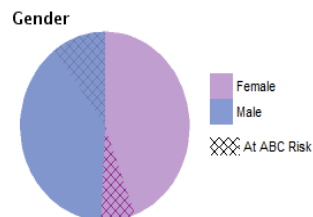
Students at ABC Risk vs. Regular by Program Enrollment



At ABC Risk Top School Characteristics

Filter selection does not affect the results below.

Rank	Characteristics	At ABC Risk	% of Top Characteristics
1	9th M Black F/R Lunch Sp Ed		58.3% (7 of 12)
2	10th M Black F/R Lunch		40.5% (15 of 37)
3	9th M Black F/R Lunch		38.6% (17 of 44)
4	10th F Hispanic F/R Lunch		38.5% (5 of 13)
5	9th F Hispanic F/R Lunch		37.5% (6 of 16)
6	9th F Black F/R Lunch		34.0% (16 of 47)
7	10th M White Sp Ed		30.8% (4 of 13)
8	11th M Hispanic F/R Lunch		27.3% (3 of 11)
9	9th F White F/R Lunch Gifted		27.3% (3 of 11)
10	10th M Black		26.3% (5 of 19)





ABC Report: In-App Resources

A common ground for information
As an administrator, you are able to see your school, a teacher's class, and even the student details. Seeing the same view as your staff can better enable good conversations for success.

Getting started... Hide additional resources -

Additional Resources

Professional Development

- Introduction Talk
- Core ABCs Concepts
- ABC Colors: Elementary, Middle, High
- Professional Development Links
- Overview of Analytics in GCPS

Other Resources

- Johns Hopkins - Team Playbook
- Johns Hopkins - Learning What It Takes
- CCSR - Freshman On-Track Handbook
- Univ. of Chicago - Reading: 3rd Grade to Graduation

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ABC Report: In-App Resources

section of: "Professional Development Links"

topic

resource: page(s)

³Freshman On-Track Handbook (**fot**)

¹Learning What It Takes (**lwt**)

²Reading: 3rd Grade to Graduation (**rg**)

¹Team Playbook (**tp**)

creating a "focus" list of students

indicators chosen for ABC Report
creating and interpreting the "focus" list

fot: 1, 13 / lwt: 3 / rg: 1, 3 / tp: 6
lwt: 15-18

putting together EWI teams

building an interdisciplinary team
roles on the team

fot: 11-12 / lwt: 4 / tp: 30-35
fot: 1 / lwt: 18-24 / tp: 57-60



ABC Report: In-App Resources


section of: "Know Your ABCs"

Know Your ABCs – common practices

practices observed...

*(from Davis, Herzog, & Legters, 2014 – Journal of Education for Students Placed at Risk (JESPAR) – Special Issue on addressing early warning indicators)
-examined practices across ES, MS, and HS in schools w/ 76-99% of students eligible for F/RL and minority status of 90-100% of students.*

identifying students using data

- create a user-friendly, real-time data system to monitor students (CHECK! )
- determine how you will identify a list of "focus students" (teams added based on the ABCs but also when they knew of an acute crisis (e.g., family death) that placed a student at risk)
- some risks, like behaviors, can draw excessive attention; team members had to be careful to be more objective about risks; both level of risk and big changes were important signs

team meetings

- teams usually examine the data of just 6-8 focus-list students per meeting for about 4 minutes each
- meetings typically lasted from 30 to 60 minutes and usually held bi-weekly
- team meetings usually included a math, English, social studies, and science teacher as well as a staff member focused on early-warning interventions, and members from community-based resources; administrators or liaisons attended as able



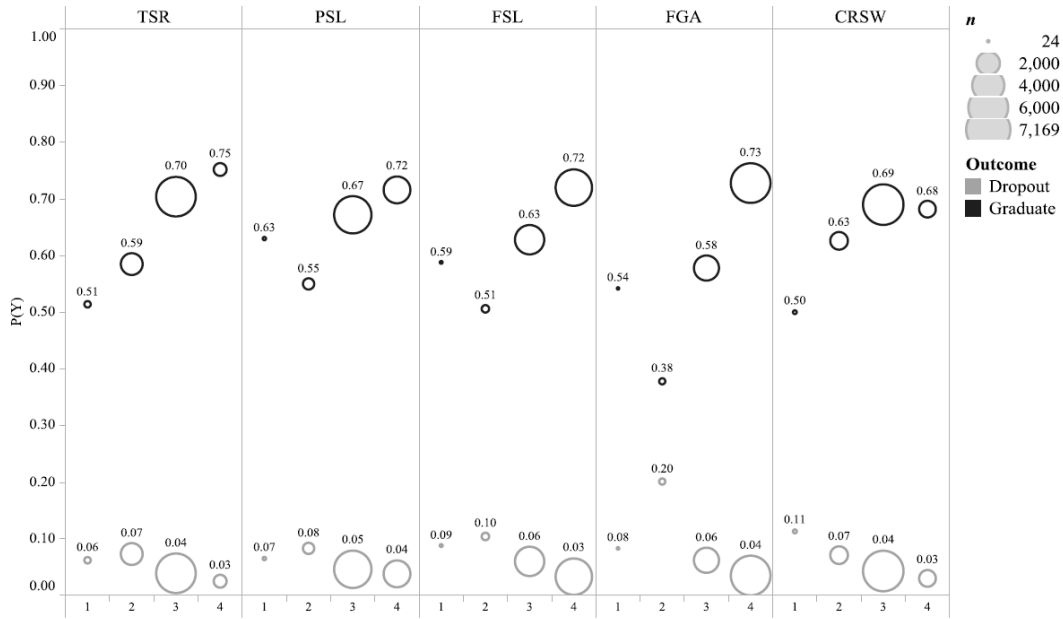
Predicting Long-term outcomes

- Bivariate
- Multivariate, multi-level





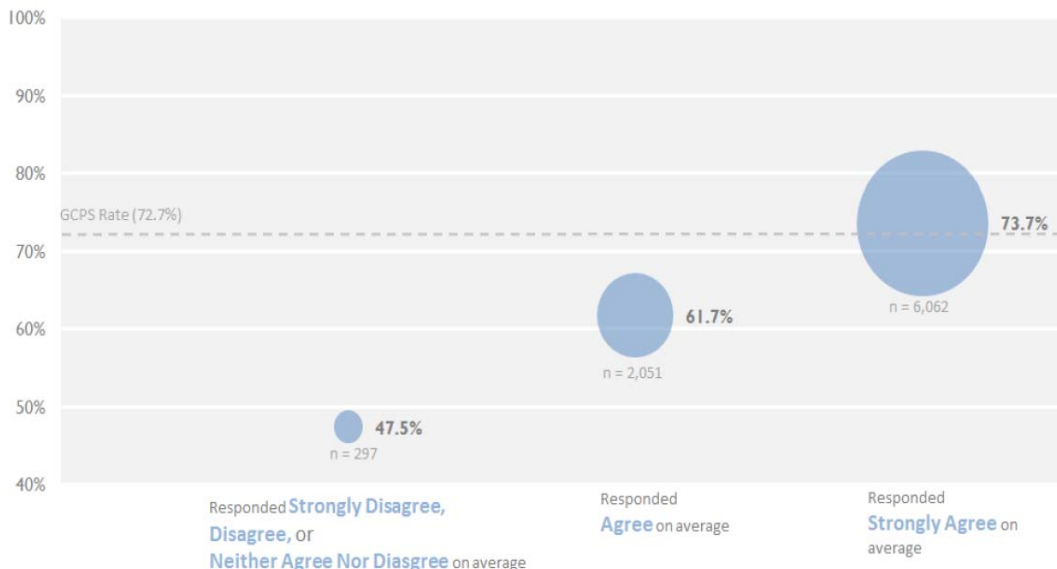
Four years later: On-time graduation and dropout as a function of SEI factor score levels in 9th grade.



Note. Higher factor score levels indicate stronger student engagement. Factor score levels (1-4) indicate how a student tended to respond on items loading on a given factor. For example, students with a factor level of 1 on TSR tended to respond *Strongly Disagree* on items related to Teacher-Student Relationships, whereas students with a factor level of 4 tended to respond *Strongly Agree*. *Dropout* refers to students who were identified in school records as leaving between Fall 2007 and Fall 2011 for any of the following reasons (a) enrollment in an adult education program, (b) expelled/suspended, (c) financial hardship/job related, (d) incarcerated, (e) low grades/failure, (f) marriage or parenting, (g) removed for non-attendance, or (h) transferred to juvenile justice department. *Graduate* refers to students who were identified in school records as graduating with a full diploma within 4 years (by summer 2011).



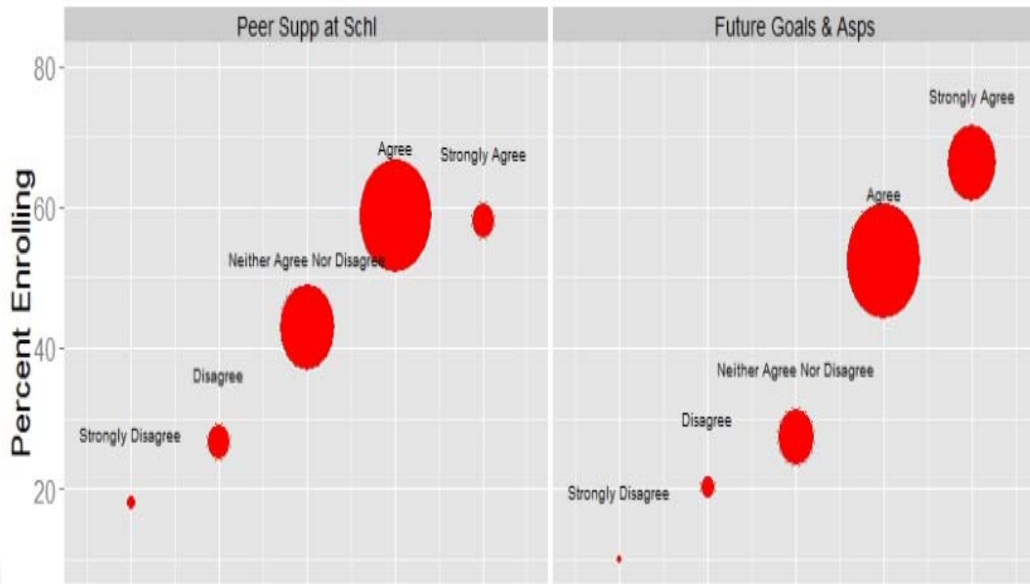
GCPS 2012-13 Adjusted Cohort Graduation Rate (AGCR) by the Cohort's 9th Grade SEI "Future Aspirations and Goals" Responses in 2009-10



*Data from GCPS ODS and GA DOE; includes all students both in 2012-13 GA DOE file and with 2009-10 SEI responses.



Post-Secondary Enrollment by Reported Student Engagement



Article

Concurrent and Predictive Validity of the Student Engagement Instrument

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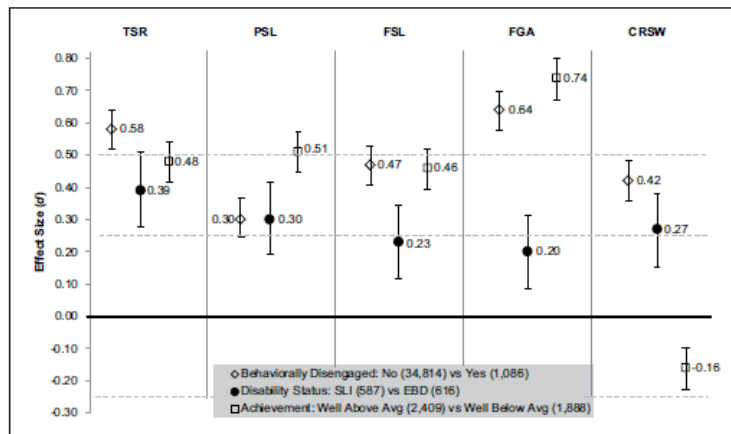


Figure 1. Effect sizes (ESs; Cohen's *d*) for group mean differences on SEI factor scores. Note. Error bars represent 95% CIs for *d*. Horizontal dashed lines indicate thresholds for educational significance (.25) and clinical significance (.50) based on Wolf's (1986) recommendations. ESs are presented so that positive estimates fit with the hypothesized direction of the association. SEI = Student Engagement Instrument; TSR = Teacher-Student Relationships; PSL = Peer Support for Learning; FSL = Family Support for Learning; FGA = Future Goals and Aspirations; CRSW = Control and Relevance of School Work.



Article

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Table 2. Multiple Logistic Regressions of Each SEI Factor on Graduation and Dropout.

Outcome		SEI factor				
		TSR	PSL	FSL	FGA	CRSW
On-time graduation <i>n</i> = 7,594 of 11,588	OR	1.54* (.07)	1.45* (.06)	1.62* (.07)	2.38* (.11)	1.24* (.05)
	95% CI	[1.41, 1.67]	[1.33, 1.57]	[1.48, 1.78]	[2.17, 2.61]	[1.15, 1.36]
Dropout <i>n</i> = 566 of 11,588	OR	0.55* (.05)	0.67* (.07)	0.54* (.04)	0.45* (.04)	0.59* (.06)
	95% CI	[0.45, 0.67]	[0.54, 0.82]	[0.46, 0.63]	[0.37, 0.55]	[0.47, 0.73]

Note. Standard error for the OR in parentheses. Regressions controlled for gender, ethnicity, and free/reduced-price lunch eligibility. SEI = Student Engagement Instrument; OR = odds ratio; CI = confidence interval; TSR = Teacher–Student Relationships; PSL = Peer Support for Learning; FSL = Family Support for Learning; FGA = Future Goals and Aspirations; CRSW = Control and Relevance of School Work.

*OR is statistically different from 1.0, *p* < .001.



Continuing External Research from Pearson...

PEARSON

RESEARCH & INNOVATION NETWORK



CENTER FOR

College & Career Success

focused on the many dimensions of students with early results below:

Research question(s):

- How well can college-ready graduation be predicted from 8th grade?
- How does this information support intervention and relate to changed outcomes?
- What are the characteristics of students who beat the odds?



Middle School Factor	College Readiness Variance Explained
Achievement	15%
Motivation	10%
Behavior	9%
Social Engagement	12%
Family Circumstances	13%
School Characteristics	9%
R ²	69%

key early findings:

- in both national datasets and the Gwinnett data, almost 70% of the variation in college-ready graduation can be predicted from 8th grade
- though Achievement was the best predictor of differences in college readiness (15% of the variation), Motivation, Behavior, and Social Engagement together out-predicted Achievement by more than double (31% of the variation)
- student SEI responses accounted for a large portion of the prediction (12% from Social Engagement) and part of the Motivation (10%) and Family Circumstances (13%) factors



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