



1:1 Mobile Learning Initiative (MLI): Measurement of Student Outcomes



January 27, 2014

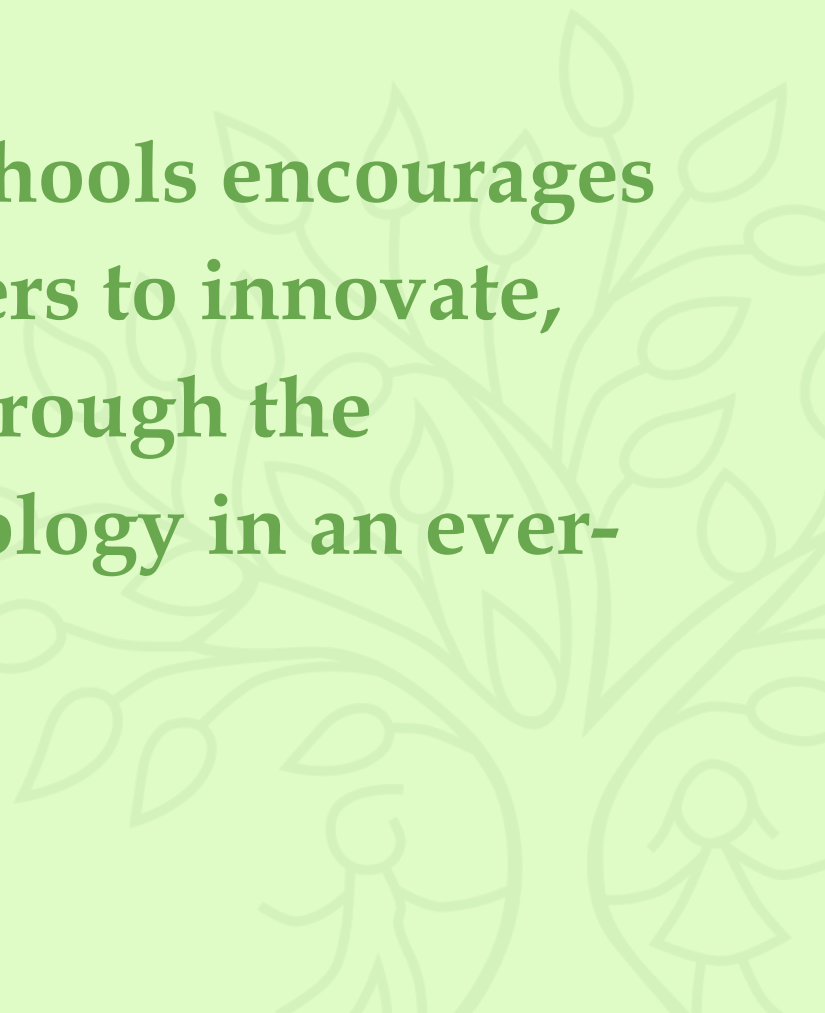
Essential questions:

- ▶ What research-based tools exist to allow us to measure student outcomes?
- ▶ How will data collected be used to inform the progress of the Mobile Learning Initiative?
- ▶ How will data from measurements be used to inform future technology initiatives?

District Technology Committee (DTC)

Vision Statement (9/14):

The Winnetka Public Schools encourages our community of learners to innovate, create and collaborate through the **purposeful use** of technology in an ever-changing global society.



Belief Statements (9/14):



A word cloud of belief statements, primarily in shades of orange, yellow, and green, set against a white background within an orange border. The words are arranged in a dense, overlapping cluster. The most prominent words are 'students' (large, orange, bottom left), 'technology' (large, orange, bottom right), 'enhance' (large, green, top center), and 'teachers' (large, dark red, center). Other significant words include 'creativity' (dark red, left), 'collaboration' (yellow, left), 'critical thinking' (dark red, center), 'digital citizenship' (green, center), and 'classroom' (orange, right). Smaller words include 'personal productivity' (vertical, green, top left), 'partnership' (green, left), 'authentic' (yellow, left), 'parents' (dark red, center), 'curricular integration' (green, left), 'modeled' (green, bottom left), 'learning' (vertical, green, bottom left), 'communication' (vertical, green, bottom center), 'enriches' (small, green, right), 'daily life' (small, orange, top right), 'real world connections' (small, orange, top right), 'learning experience' (small, dark red, top right), 'skilled users' (small, orange, top right), 'implementing' (small, dark red, top right), and 'planning' (vertical, green, top right).

creativity
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parents
daily life
real world connections
learning experience
skilled users
implementing
planning

Background:

- ❖ Three Outcomes
- ❖ Two Months of Research
- ❖ One Recommendation

Three Outcomes

- ❖ Students have increased opportunities for self-directed learning experiences.
- ❖ Students use technology to effectively initiate and engage in collaborative learning.
- ❖ Students are savvy, strategic, responsible and balanced users of technology

Two Months of Research

❖ **Vendors**

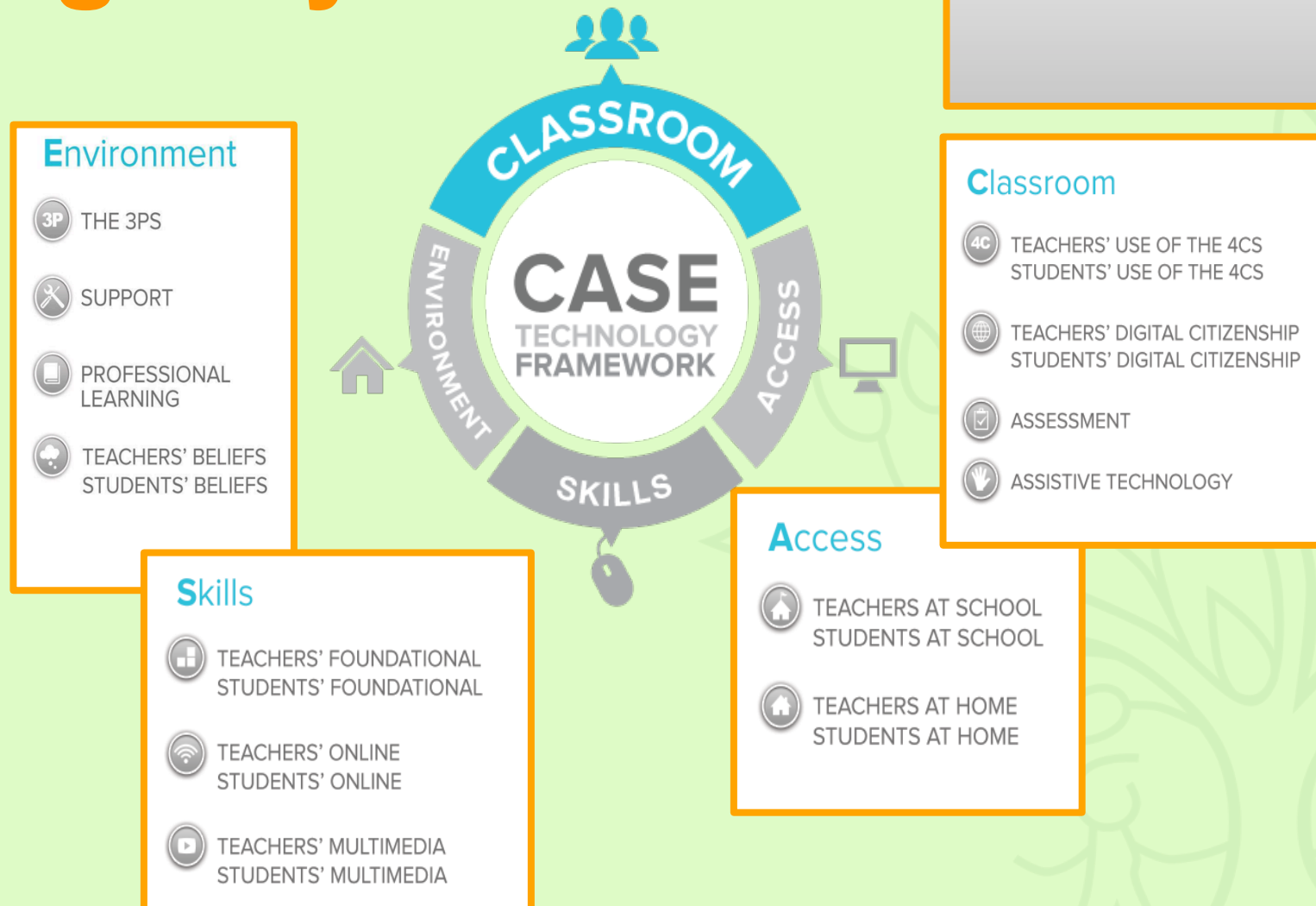
❖ **Measures**

❖ **Evidence**

❖ **Action**



Recommendation: BrightBytes+



Crosswalk:

CASE to District 36 Student Outcomes

MEASURE	STUDENT OUTCOMES		
	Students have increased opportunities for self-directed learning experiences.	Students use technology to effectively initiate and engage in collaborative learning.	Students are savvy, strategic, responsible and balanced users of technology
CASE - Classroom	4C's Assistive Tech Formative Assessment	4C's	Assistive Tech
CASE - Access	Access at School Access at home	Access at School Access at home	Access at School Access at home
CASE - Skills	Online Multimedia	Foundational Online Multimedia	Online Multimedia
CASE Environment	3P's Beliefs		

Other measures of District 36

Student Outcomes

MEASURE	STUDENT OUTCOMES		
	Students have increased opportunities for self-directed learning experiences.	Students use technology to effectively initiate and engage in collaborative learning.	Students are savvy, strategic, responsible and balanced users of technology
Schoology Statistics		Percentage of teachers using Schoology to deliver content.	
Google Drive Statistics		Use of Google Docs, Sheets, Slides and Forms, number of published documents.	
App Requests	Percentage of teachers requesting apps for further exploration	Percentage of teachers requesting apps for further exploration	
Student Behavior Data			Evaluate Instances of student behavior related to the use of technology.
Internet Content Filter			Review internet searches for content that has been blocked or marked as suspicious.
Paper Consumption			Follow paper consumption based on paper re-orders from year to year.
Teacher and student Interviews	To provide context for action plans and staff development.		

CASE Framework

1063

CASE™ Score ⓘ

Proficient

CASE™ Score Legend

- Exemplary
1200-1300
- Advanced
1100-1199
- Proficient
1000-1099
- Emerging
900-999
- Beginning
800-899

Classroom



Use of the 4Cs

Teachers

Students

Digital Citizenship

Teachers

Students

Assessment

Assistive Technology

Access



Access at School

Teachers

Students

Access at Home

Teachers

Students

Skills



Foundational

Teachers

Students

Online

Teachers

Students

Multimedia

Teachers

Students

Environment



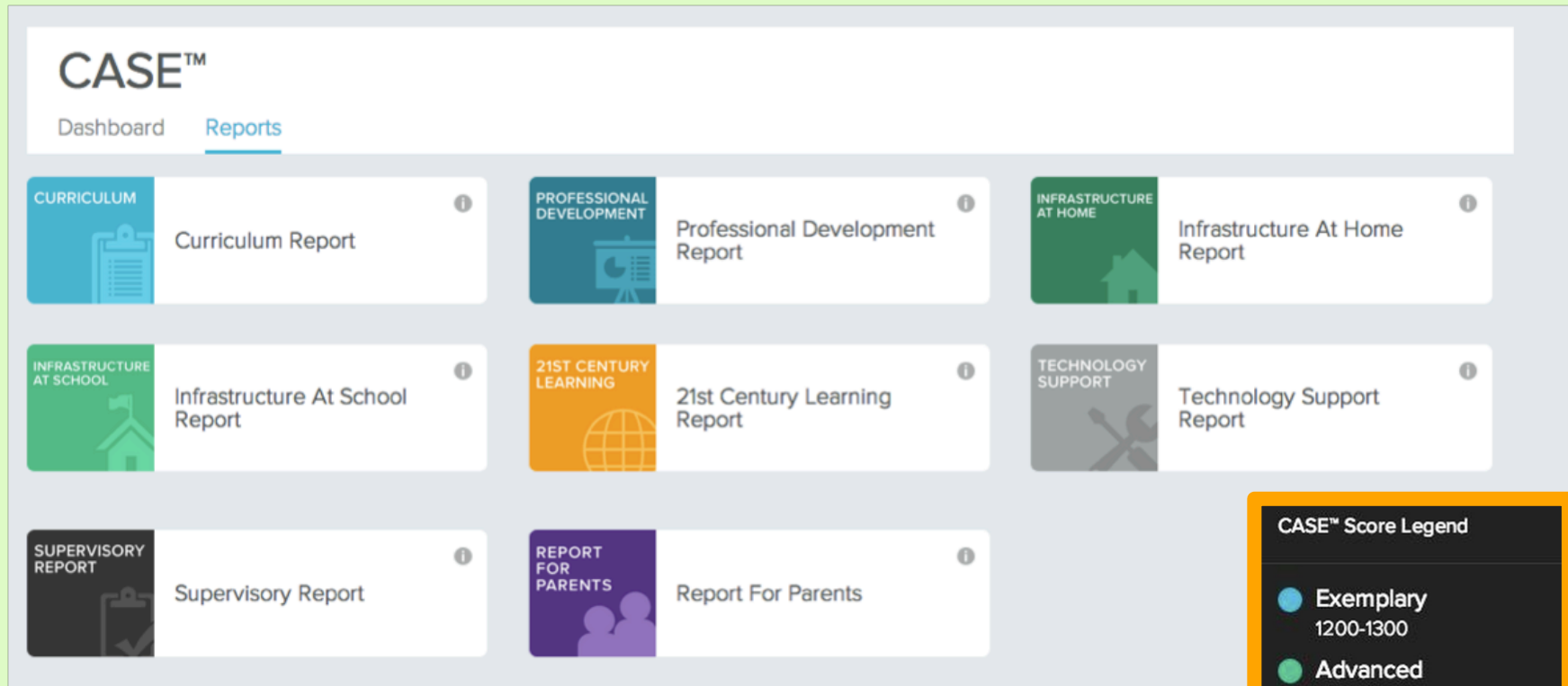
The 3Ps

Support

Professional Learning

Beliefs

High Level Overview Data Reports



CASE™ Score Legend


- Exemplary
1200-1300
- Advanced
1100-1199
- Proficient
1000-1099
- Emerging
900-999
- Beginning
800-899

Students use technology to effectively initiate and engage in collaborative learning.

Teachers ask students to create e-Portfolios

 5% At least weekly

 0% Monthly

 9% Every few months

 84% Never

Students are savvy, strategic, responsible and balanced users of technology.



Time spent per year teaching about prevention of cyberbullying



4% More than 5 hours

18% 3-5 hours

18% 1-3 hours

33% 1 hour or less

24% I don't teach this



Time spent per year teaching about online safety



4%
More than 5 hours



18%
3-5 hours



28%
1-3 hours



26%
1 hour or less



22%
I don't teach this

Predictions, Goals and Measurements

Instruments	Domains	Indicators	2014-2015 Score (Prediction)	2017-2018 Score (Goals)
CASE Framework	Classroom	4C's	Emerging	Advanced
		Assistive Tech	Beginning	Advanced
		Formative Assessment	Emerging	Exemplary
		Digital Citizenship	Beginning	Advanced
	Access	Access at home	Advanced	Advanced
		Access at School	Proficient	Exemplary
	Skills	Foundational	Emerging	Exemplary
		Online	Proficient	Advanced
		Multimedia	Proficient	Advanced
	Environment	3P's	Emerging	Advanced
		Beliefs	Proficient	Advanced
Other Quantitative Measures	App Requests	Percentage of teachers requesting apps for further exploration	10% increase from August to June	50% increase from 2014-2018
	Schoology Statistics	Percentage of teachers using Schoology to deliver content.	10% increase from August to June	50% increase from 2014-2018
	Google Drive Statistics	Use of Google Docs, Sheets, Slides and Forms, number of published documents.	10% increase from August to June	50% increase from 2014-2018
	Student Behavior Data	Evaluate Instances of student behavior related to the use of technology.	10% decrease from August to June	50% decrease from 2014-2018
	Internet Content Filter Data	Review internet searches for content that has been blocked or marked as suspicious.	10% decrease from August to June	50% Decrease from 2014-2018
	Paper Consumption Data	Follow paper consumption based on paper re-orders from year to year.	10% decrease from August to June	50% Decrease from 2014-2018
Qualitative Measures	Teacher Interviews	To provide context for action plans and staff development.		
	Student Interviews			

Proposed Timeline for Measurements

2014-2015	October	February	May
BrightBytes Survey	No	No	Yes
Teacher Interviews	No	No	Yes
Student Interviews	Yes	No	Yes
App Requests	Yes	No	Yes
Classroom Observations	Yes	Yes	Yes
Schoology Statistics	No	No	Yes
Google Drive Statistics	Yes	Yes	Yes
Internet Content Filter	No	Yes	Yes
Student Behavior	No	No	Yes
Paper Consumption	No	No	Yes

2015-2018	October	February	May
BrightBytes Survey	Yes	Yes	Yes
Teacher Interviews	Yes	No	Yes
Student Interviews	Yes	No	Yes
App Requests	Yes	No	Yes
Classroom Observations	Yes	Yes	Yes
Schoology Statistics	Yes	No	Yes
Google Drive Statistics	Yes	Yes	Yes
Internet Content Filter	Yes	No	Yes
Student Behavior	Yes	No	Yes
Paper Consumption	Yes	No	Yes

Next Steps:

- ❖ Enter into contract with BrightBytes
 - 1 Year \$5,706.00
 - 3 Year \$14,000
- ❖ Follow proposed timelines
- ❖ Based on actual benchmark data, review and modify goals (spring 2015)
- ❖ Report to the School Board in June to share progress for the year and next steps for 2015-2016



Q & A



A Community of Learners

Mobile Learning Initiative- Measurement

TO: School Board
Trisha Kocanda, Superintendent

FROM: Maureen Miller, *Director of Technology*

January 27, 2015

Executive Memo

Essential Questions

- What research-based tools exist to allow us to **measure** student outcomes?
- How will data collected be used to inform the progress of the Mobile Learning Initiative?
- How will data from measurements be used to inform future technology initiatives?

Background

In October the School Board was presented with three main outcomes for the mobile learning initiative:

- Students have increased opportunities for self-directed learning experiences.
- Students use technology to effectively initiate and engage in collaborative learning.
- Students are savvy, strategic, responsible and balanced users of technology.

Once the goals of the Mobile Learning Initiative were shared with the School Board, we began researching service providers who are well versed in measuring mobile learning initiatives. The two leaders in this area are BrightBytes (<http://brightbytes.net/>) and Gartner Technologies (<http://www.gartner.com/technology/home.jsp>).

Our research is illustrated in the table below:

	Bright Bytes	Gartner Technologies
Local References	CHSD 230 CCSD 21 CCSD 59 DPS 109 THSD 113 Wilmette 39 Skokie 68 Glenbrook School District 225 Glenview SD 34 Niles 219 Park Ridge-Niles SD 64	U-46 (40,000 students) Focus is on larger, urban districts.
Pricing Model	Per pupil cost plus add on modules for SAMR, ISTE and Parents 1 Year \$5,706.00 3 Year \$14,000	Flat fee of \$30,000/year
Scope of Work	Focus only on education market and research specific to student learning.	Broad scope of work including infrastructure, strategic planning, business intelligence
Measures	Class, Access, Skills, Environment (described below)	Cost optimization, Infrastructure, Governance

Recommendation:

Based on our research and recommendations from local colleagues, we are recommending BrightBytes as our partner for measuring our desired student outcomes.

BrightBytes uses data analysis to drive the impact of technology on student learning. BrightBytes will enable The Winnetka Public Schools to better allocate technology resources, and to respond quickly to the diverse needs of our students and teachers. Data analysis of survey results will provide personalized recommendations to help our team make better decisions, reach our goals, and attain greater transparency into the district's technology spending.

BrightBytes

BrightBytes uses the CASE framework to organize data collection. The CASE framework contains four domains: Classroom, Access, Skills, and Environment. Their adaptive



survey draws from a bank of over 300 questions to create short, individualized questionnaires for each respondent. CASE outlines the essential factors schools need to improve teaching and learning through the use of technology.

Measures Provided by CASE Framework in 4 Domains

Classroom

Indicators	Evidence
The 4 C's: communication, collaboration, creativity, & critical thinking.	<ul style="list-style-type: none"> ● creating new ideas ● refining and evaluating ● communicating with experts ● being open to diverse perspectives ● demonstrating originality ● viewing failure as part of the process ● online collaboration ● solving authentic problems ● collecting and analyzing data
Digital Citizenship	<ul style="list-style-type: none"> ● legal use of online content ● online safety ● cyberbullying prevention ● using social networks for learning ● evaluating the credibility of online content
Assistive Technology	<ul style="list-style-type: none"> ● Text-to-Speech ● Concept/Mind-mapping ● Speech-to-Text ● Digital Textbooks ● Classroom Displays
Formative Assessment	<ul style="list-style-type: none"> ● digital exit slips ● online polling tools ● digital bulletin boards ● backchannels ● audio feedback

Access

Indicators

Student and teacher
access at home

Evidence

- computing devices
 - shared or unshared
- internet access

- wireless or wired

Student and teacher
access at school

- student to device ratio
- access to computer labs and carts
- types of devices available
- quality of connections

Skills

Indicators

Evidence

Student and Teacher
Foundational Skills

- sending emails
- word processing
- learning new technologies
- connecting to printers
- connecting to projectors
- basic troubleshooting and problem-solving

Student and Teacher
Online Skills

- collaborate using online documents
- videoconference
- social media for teaching and learning
- consuming online content
- creating online content

Student and Teacher
Multimedia Skills

- record and edit and/or publish audio
- record and edit and/or publish video
- download or stream content

Environment

Indicators

Evidence

Policy, Procedures,
and Practices (3P's)

- technology use at department/grade-level meetings
- recognition for integrating technology
- internet filter traffic and requests

Technology Support

- speed of support
- quality of support
- answers to routine questions
- instructional technology planning
- hardware repair and replacement
- technology refresh cycles

Professional Learning

- school sponsored
- formal opportunities (degrees,

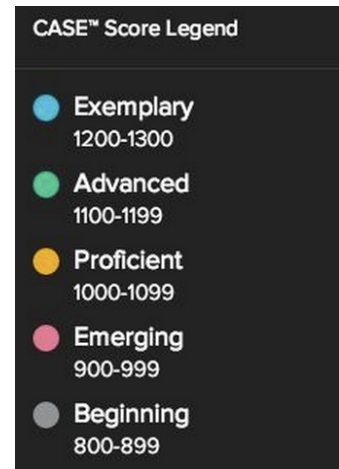
Student and Teacher Beliefs

- conferences, workshops)
- informal opportunities (blogs, videos, social networks, webinars)
- technology enhances student learning
- school encourages technology use
- technology enhances daily life

Initial results will be gathered during a two week window when surveys will be shared with students, staff and parents. Once the survey window closes, several reports will be generated for analysis. The reports types include the following:

- Curriculum
- Professional Development
- 21st Century Learning
- Infrastructure
- Technology

Reports will be reviewed with the assistance of BrightBytes analysts and education experts. Results of the survey are presented with an overall CASE score (legend to the right) along with a score for each domain and data point. Recommendations will be reviewed and implemented as necessary. Along with the reports come suggested actions in the form of “Quick Wins” and “Game Changers.” Once we have collected and analyzed the data, we will return in June to share the measures with the School Board.



Crosswalk: CASE to District 36 Student Outcomes

BrightBytes measures over 100 data points and 22 indicators. Therefore, we have aligned the most pertinent indicators with our outcomes and set growth targets for the next 4 years. In addition to the BrightBytes quantitative data, we will use student and teacher interviews, statistics from Schoology and Google Apps for Education (GAPE), internet content filter data (Lightspeed), Student behavior data, app request information and paper consumption data.

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Predictions, Goals and Measurement

A report to the Board will be shared after every measurement cycle using this reporting template ([Link to live template](#)) :

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Click [here](#) to view the presentation that will be provided at the January 27, 2015, School Board meeting.