

SAN JOSE UNIFIED: BUILDING A DATA-DRIVEN CULTURE

EDUCATION FOR THE FUTURE
SUMMER INSTITUTE
JULY 23-27, 2007



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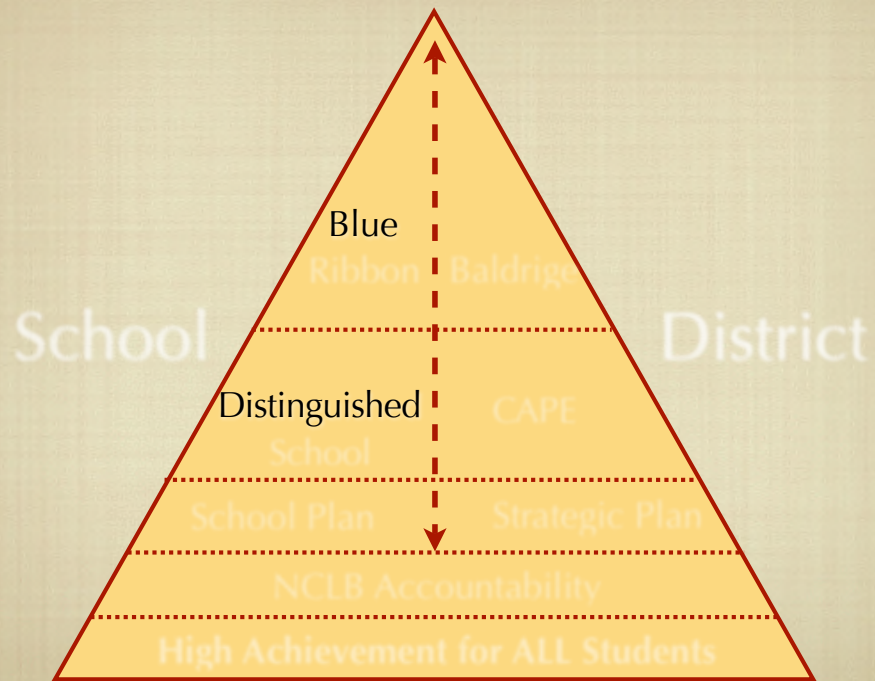
TODAY'S KEY TAKE-AWAYS

- ELEMENTS OF AN ALIGNED, HIGH-PERFORMING SYSTEM
- STRUCTURE FOR DATA-BASED DECISION-MAKING
- ROLE OF DATA TEAMS
- ACTIVITY: MAPPING YOUR SYSTEM



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AN ALIGNED SYSTEM



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GOAL: HIGH PERFORMANCE

- BOARD RESOLUTIONS EXPECT MEASUREABILITY
- RESOURCE ALLOCATION SUPPORTS DATA-BASED DECISION-MAKING
- STRATEGIC PLAN DEFINES MEASUREABLE GOALS
- DATA INFORMS COMMUNITY OF PROGRESS

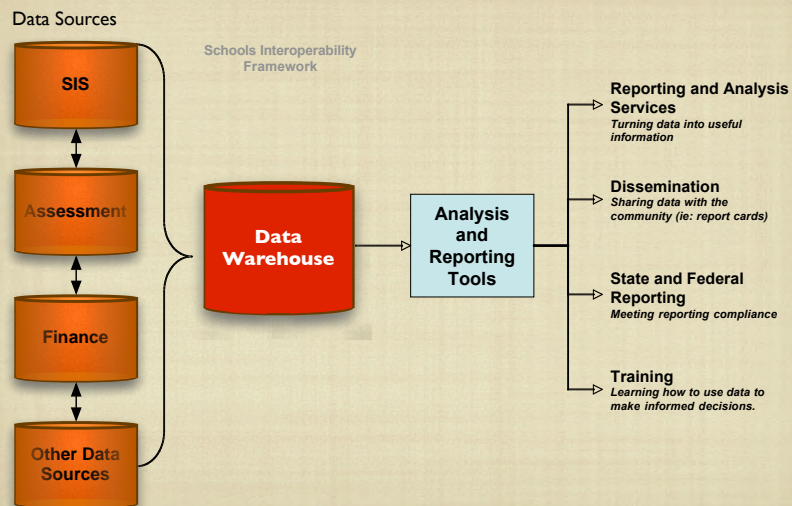


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STRUCTURING FOR DATA-BASED DECISION-MAKING

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CENTRALIZING OUR DATA



Source: Susan Patrick, US Department of Education

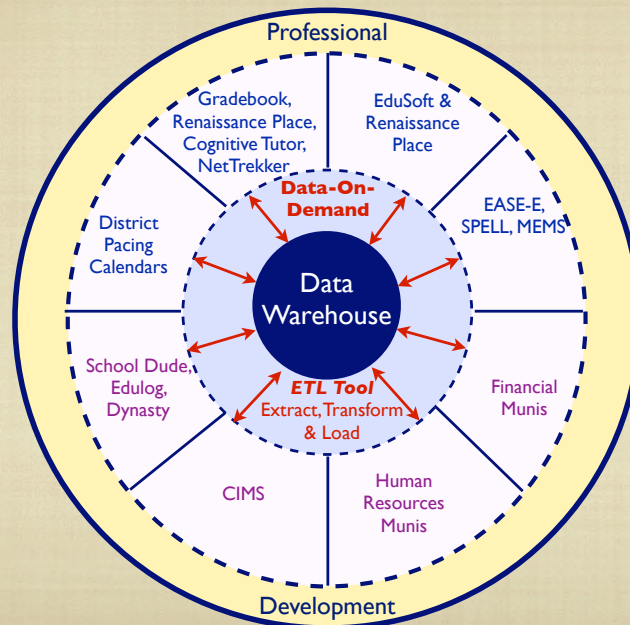
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INTEGRATED K-12 SOLUTIONS

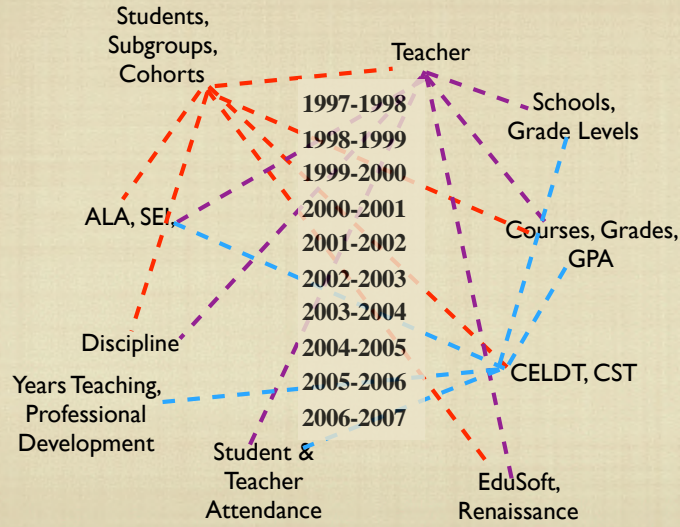


Source: Stupski Foundation, CTAP 2

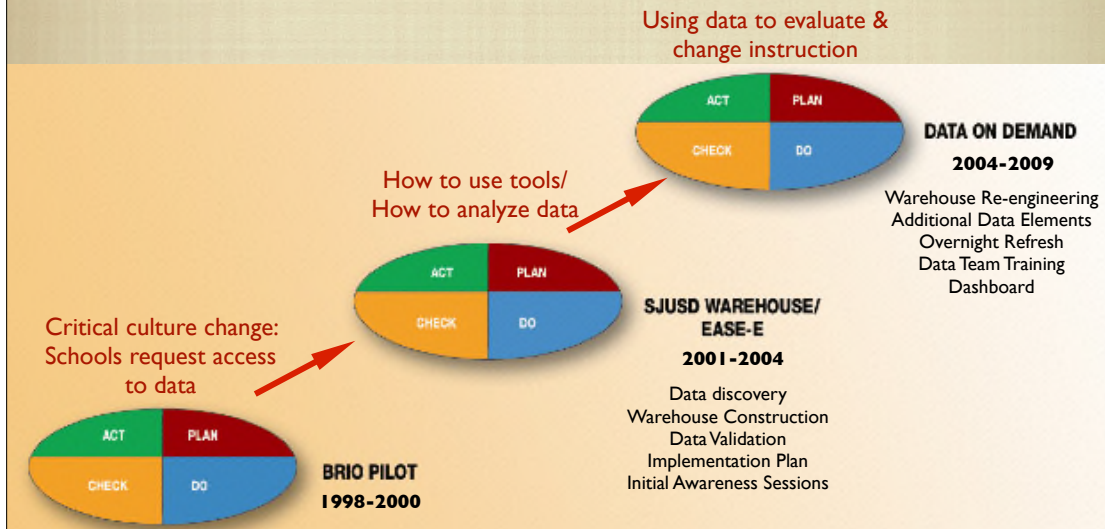
SJUSD INTEGRATED SOLUTIONS



DATA RELATIONSHIPS



TIMELINE



BUILDING DATA LITERACY

- **STEP 1: AWARENESS
SESSIONS: ALL STAFF
(1600)**
- **STEP 2: INITIAL TRAINING:
700 TRAINED IN 4-HOUR
SESSIONS**
- **STEP 3: DEVELOPING DATA
TEAMS (1-4 PEOPLE/SITE OR
DEPT):130 IN ONGOING
TRAINING SESSIONS**
- **STEP 4: DATA & SYSTEMS
RESOURCE TEACHER, DATA
TEAM STIPENDS AND FTES**



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WHAT DOES A DATA TEAM DO?

- **PROVIDE SERVICE TO “CLIENTS” AT ITS SCHOOL SITE**
 - **HELP CLIENTS ASK QUESTIONS**
 - **HELP DESIGN THE MEASURES**
 - **DO QUANTITATIVE ANALYSIS**
 - **REPORT FINDINGS, NOT CONCLUSIONS**

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WHO'S ON A DATA TEAM?

- **SENIOR DECISION-MAKER**
(LEND LEGITIMACY, ARRANGE ACCESS)
- **PROCESS MANAGER**
(COORDINATE THE TEAM)
- **FRIENDLY FACE**
(BE THE FACE AND VOICE TO THE WHOLE STAFF)
- **INSTITUTIONAL HISTORIAN**
(KNOWS WHERE MOST OF THE BODIES ARE BURIED)
- **ANALYST**
- **TECHNOLOGY SPECIALIST**

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HOW DATA-BASED DECISION-
MAKING IS CHANGING
PIONEER H.S.

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Q1: ARE WE ASSESSING STANDARDS?

- **MEASURES:** COMPARE STATE TEST RESULTS TO SEMESTER GRADES
- **FINDINGS:** SOME CLASSES HAD A CLOSE RELATIONSHIP; OTHERS DIDN'T
- **ACTION:** DEPARTMENTAL AND INDIVIDUAL REFLECTION ON FORMATIVE ASSESSMENT DESIGN/ CURRICULUM

ALGEBRA 1 CST VS GRADES

SEMESTER 2 GRADES					
	A	B	C	D	F
ADV	5	3		1	
PROF	15	21	8		
BASIC		10	22	2	1
BB		2	10	10	2
FBB			2	1	2

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Q2: WHY ARE AP SOCIAL STUDIES ENROLLMENT & SCORES DECLINING?

- **MEASURE:** TEST DEPARTMENT HYPOTHESIS: ONE FRESHMAN-LEVEL TEACHER HAD "POISONED THE WELL." COMPARE AP SCORES, PRIOR TEACHERS & COURSE SELECTION PATTERNS, CST SCORES & SEMESTER GRADES
- **FINDINGS:** NO RELATIONSHIP FOUND BETWEEN FORMER TEACHERS, COURSE GRADES OR AP PERFORMANCE
- **ACTION:** DEPARTMENT EVALUATES RECRUITMENT PRACTICES AND CURRICULUM
- **RESULTS:** ENROLLMENT UP 15%



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Q4: WHAT ARE THE INDIVIDUAL WEAKNESSES IN EACH OF MY STUDENTS?

- **MEASURE:** PHYSICS TEACHER WANTED TO MAXIMIZE THE PERFORMANCE OF HIS STUDENTS BY CREATING INDIVIDUAL REVIEW PLANS BEFORE STATE AND AP TESTING.
- **FINDINGS:** USED BENCHMARKS TO IDENTIFY INDIVIDUAL STUDENT WEAKNESSES
- **ACTION:** DEVELOPED INDIVIDUAL REVIEW PLANS FOR ALL 147 STUDENTS THREE WEEKS BEFORE TESTING
- **RESULT:** 87% PROF/ADVANCED ACROSS ALL LEVELS; 100% PASSED AP



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Q5: WHY ARE GIRLS TAKING FEWER ADVANCED MATH CLASSES?

- **MEASURES:** IDENTIFY GROUPS OF SIMILARLY ABLE FRESHMEN BOYS AND GIRLS AND EXAMINE THEIR COURSE-SELECTION CHOICES
- **FINDINGS:** SIMILARLY QUALIFIED GIRLS WERE 3 TIMES LESS LIKELY TO CHOSE ADVANCED MATH CLASSES
- **ACTION:** GENDER-ALIKE CLASSES, AND ACTIVE RECRUITMENT
- **RESULTS:** GIRLS NOW MAKE UP A MAJORITY OF PRE-CALCULUS AND CALCULUS CLASSES



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Q8: WHY ARE ADVANCED STUDENTS STRUGGLING IN ALGEBRA 2?

- **MEASURES:** COMPARE LONGITUDINAL CST RESULTS, GRADES AND HIGH SCHOOL EQUIVALENCE EXAM SCORES
- **FINDINGS:** NEGATIVE CORRELATION (-.02) BETWEEN CST AND EXIT EXAM SCORES FOR MIDDLE SCHOOL ALGEBRA 1
- **ACTION:** REWROTE DISTRICT EXIT EXAM WHICH CAUSED PASS RATE TO FALL TO 50%. MOVED SOME SOPHOMORES FROM ALGEBRA 2 TO SPECIAL ALGEBRA 1X COURSE.
- **RESULTS:** SCORES UP 71%



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CONSEQUENCES

☀ ACCOUNTABILITY ANXIETY IS MITIGATED

- THE MORE TEACHERS UNDERSTAND THE STATE AND DISTRICT ACCOUNTABILITY SYSTEMS, THE LESS THEY FEAR THEM.
- THE MORE TEACHERS UNDERSTAND WHY THEY GET THE RESULTS THEY DO, THE MORE THEY STOP MAKING EXCUSES.
- WHEN TEACHERS HAVE THE TOOLS TO EVALUATE THEIR OWN PRACTICE, THEY NEED LESS SUPERVISION.

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CONSEQUENCES

SACRED COWS GET SLAUGHTERED

- A LOT OF DECISIONS ARE BASED ON ASSUMPTIONS AND ANECDOTES
- WHEN WE HAVE THE MEANS TO ASSESS THE VALIDITY OF OUR ASSUMPTIONS, WE ARE SOMETIMES FORCED TO CHANGE LONG-HELD BELIEFS AND ADJUST OUR PRACTICE.

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CONSEQUENCES

EXPERIMENTATION FLOURISHES

- WHEN SCHOOLS HAVE THE MEANS TO EVALUATE THEIR OWN CURRICULAR EXPERIMENTS, THEY ARE MORE LIKELY TO PROPOSE THEM AND HAVE THEM APPROVED BY DISTRICT OFFICE.

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PI SCHOOLS DATA TEAM DEVELOPMENT

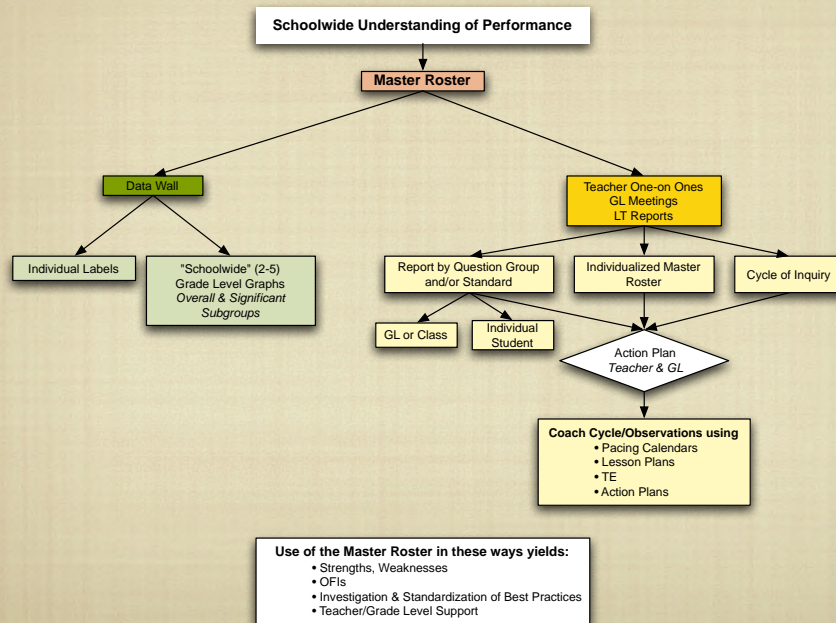
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2006-07: PREPARING PI SCHOOLS FOR DOUBLE- DIGIT GROWTH

- DATA INFRASTRUCTURE REQUIRED FOR DOUBLE-DIGIT GROWTH
- DATA TEAMS
- DATA AND PROCESS TOOL DEVELOPMENT
- SCHOOL AND CLASSROOM DATA WALLS

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MASTER ROSTER



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DEVELOPMENTAL STAGES OF DATA-DRIVEN SCHOOLS

- FEAR
- RELUCTANCE
- EXPLORATION
- ACCOUNTABILITY
- CONTINUOUS IMPROVEMENT



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FEAR

■ CHARACTERIZED BY:

- FEAR
- ACTIVE OPPOSITION
- GRIEVANCES FILES WITH UNION

■ OVERCOME BY:

- SEPARATE REFLECTION FROM EVALUATION
- ENGAGE UNION LEADERSHIP
- START SMALL

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RELUCTANCE

■ CHARACTERIZED BY:

- RITUAL COMPLIANCE TO YET ANOTHER IN A LONG LINE OF ADMINISTRATIVE DIRECTIVES
- NO ONE ASKS QUESTIONS

■ OVERCOME BY:

- START SMALL
- GIVE GUIDED ASSIGNMENTS TO DEPARTMENTS
- ASK DEPARTMENTS TO RECOMMEND SOLUTIONS TO SPECIFIC PROBLEMS

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EXPLORATION

■ CHARACTERIZED BY:

- TEACHERS USE DATA TO DESCRIBE WHAT THEY DO
- ALL THE NEWS IS GOOD NEWS

■ OVERCOME BY:

- FRAME THE PROBLEM
- SET SCHOOL-WIDE GOALS AND ASK FOR DEPARTMENTAL ACTION PLANS

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ACCOUNTABILITY

■ CHARACTERIZED BY:

- MAJORITY OF FACULTY PARTICIPATING
- MOST WORK IS FOCUSED ON IMPROVING TEST SCORES

■ OVERCOME BY:

- SUCCESS
- SOMEONE ASKS: WHAT NEXT?

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CONTINUOUS IMPROVEMENT

- **CHARACTERIZED BY:**

- **TEACHERS THINKING BEYOND TEST SCORES**
- **SCHOOL IS DEVISING NEW WAYS OF MEASURING ITS PROGRESS**
- **SCHOOL IS ADDING TO THE DATA WAREHOUSE**



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CREATING A DATA-DRIVEN SCHOOL

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DISTRICT OFFICE ROLE

- COLLECT AND STORE DATA
- OPEN ACCESS
- POINT PERSON FOR CONTINUOUS IMPROVEMENT
- COORDINATE USERS GROUP
- RUN PROFESSIONAL DEVELOPMENT & TRAINING
- ADVOCATE AND EVANGELIZE

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SITE ADMINISTRATOR ROLE

- CREATE THE CLIMATE, DEFINE THE MISSION
- VALUE DATA
 - USE DATA IN DECISION-MAKING
 - PROVIDE AND DEMAND RATIONALE FOR DECISIONS
- EMPOWER A DATA TEAM
- PROVIDE COLLABORATION TIME FOR EVERYONE
- EMPOWER THE FACULTY: ENCOURAGE INNOVATION AND RISK-TAKING

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DATA TEAM ROLE

- PROVIDE SERVICE TO DEPARTMENTAL AND TEACHER “CLIENTS”
 - HELP CLIENTS ASK QUESTIONS
 - DESIGN THE MEASURES
 - DO QUANTITATIVE ANALYSIS
 - REPORT FINDINGS, NOT CONCLUSIONS
 - ADVOCATE AND EVANGELIZE

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DISTRICTWIDE IMPACT

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ACADEMIC PERFORMANCE INDEX RESULTS



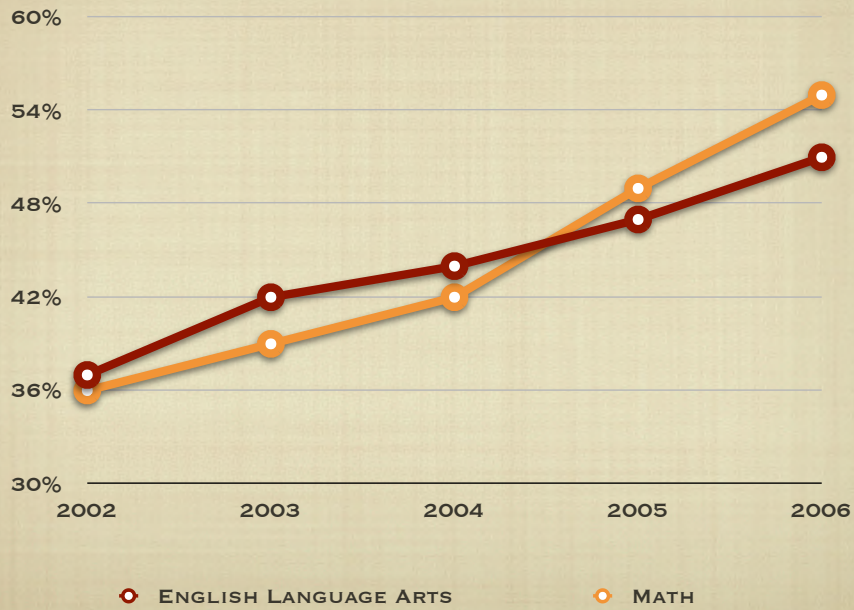
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API: CLOSING THE GAP



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AYP PROGRESS



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REQUIREMENTS FOR SUCCESS

- TIME FOR REFLECTION & COLLABORATION
- FOSTERING THE DATA-DRIVEN CULTURE THROUGH:
 - DATA TEAM DEVELOPMENT
 - ONGOING TRAINING
 - FORMATIVE ASSESSMENTS TO HELP TEACHERS CHECK FOR UNDERSTANDING AND PROGRESS
 - ONGOING PROCESS IMPROVEMENTS



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QUESTIONS & ANSWERS

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