

ASK THE RIGHT QUESTIONS, USE DATA, GET RESULTS

EARCOS Monday 2 November 2009
13:00-14:00
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What learning for what kids is at stake in my school? STARTING POINTS

STARTING POINT ONE	STARTING POINT TWO
What questions do we have about the learning going on in our school? And what data would we need to collect to answer them?	What do the data we are already collecting tell us about learning on our school?

What do we do with these data????

SMOLDERING ISSUES?

Is your school like most? Do you have some unresolved learning issues?

ISSUE	WHAT DATA WOULD BE HELPFUL?

TYPES OF DATA

Type of Data	Description
	<p>These data describe the students, the school's staff, the school, and the surrounding community. This information delineates the context in which the school operates and is crucial for understanding all other data.</p> <p><u>Examples:</u></p>
	<p>These data tell us about student, parent and staff satisfaction with the work of the school.</p> <p><u>Examples:</u></p>
	<p>These data help schools see the results the school's program and practices are producing. They tell to what extent student are achieving. These data guide planning for improvement in the classroom, leadership, and professional development.</p> <p><u>Examples:</u></p>
	<p>These data include the school's programs, instructional strategies, assessment strategies, and classroom practices. It is these processes that will need to change to achieve different learning results.</p> <p><u>Examples:</u></p>



EXAMPLES OF DEMOGRAPHIC DATA

<p>About Staff</p> <ul style="list-style-type: none"> • Numbers of teachers, administrators, paraprofessionals, and support staff • Years of experience (total number of years and by grade level) • Levels of preparation for current position • Absences • Gender • Ethnicity/race • Retirement projections • Types of certification • Student-teacher ratios • Professional development opportunities • Extracurricular activity involvement/committees • Turnover rate 	<p>About Students</p> <ul style="list-style-type: none"> • Number of students in the school • Absences/tardies • Gender • Ethnicity/race • Home background • Lunch status (free, reduced, or full price) • Language proficiency • Preschool attendance • Special needs • Mobility • Retention rates • Success at future schools • Graduation rates • Post-graduation education/employment • Extracurricular activities • Honors/advanced placement status • Reasons for choosing the school
<p>About the School</p> <ul style="list-style-type: none"> • History • Safety/crime data • Special qualities and strengths • Community support • Class size 	<p>About the Community</p> <ul style="list-style-type: none"> • Location and history • Makeup of the population • Economic base • Population trends • Types of employers in the community • Projections of growth • Parent employers • Community/business involvement • Support agencies • External test score

EXAMPLES OF LEARNING DATA

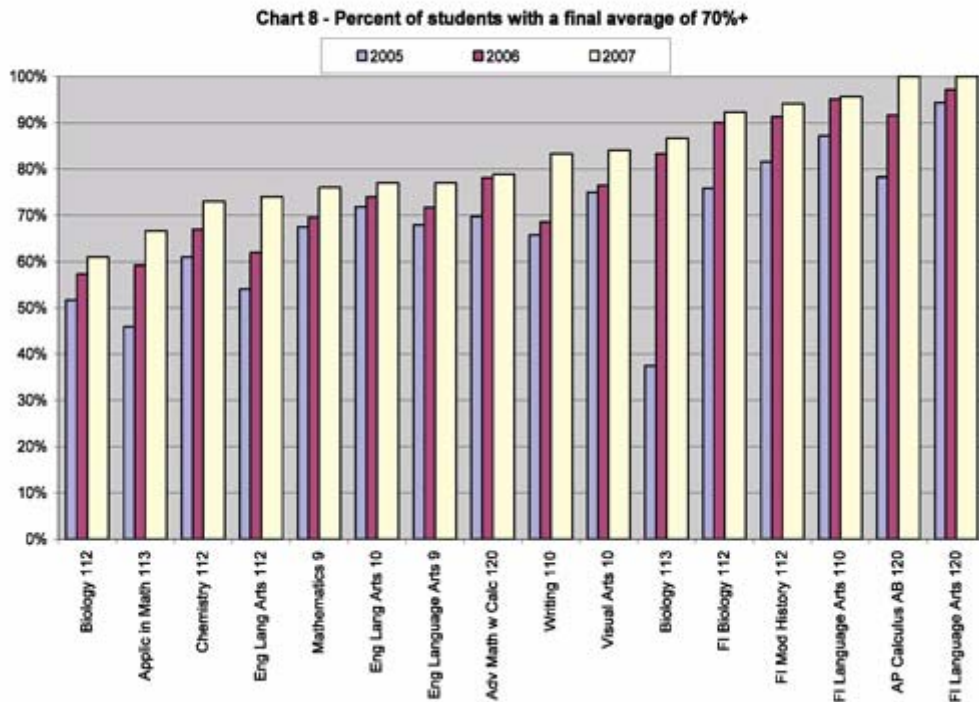
Grade 6														
	Math		Science		English		S. Studies		For.Lang.		Arts		PE	
A	23	51%	10	22%	12	31%	12	28%	15	33%	64	47%	37	82%
B	18	40%	21	47%	26	67%	22	51%	23	51%	64	47%	6	13%
C	4	9%	14	31%	1	3%	9	21%	6	13%	7	5%	2	4%
D	0	0%	0	0%	0	0%	0	0%	1	2%	0	0%	0	0%
F	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
	45		45		39		43		45		135		45	

Grade 7														
	Math		Science		English		S.Studies		For.Lang.		Arts		PE	
A	27	43%	31	48%	17	29%	31	49%	21	30%	72	37%	46	73%
B	14	22%	23	35%	18	31%	18	29%	34	49%	87	45%	11	17%
C	11	17%	10	15%	23	39%	13	21%	13	19%	32	17%	5	8%
D	10	16%	1	2%	1	2%	1	2%	1	1%	2	1%	1	2%
F	1	2%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
	63		65		59		63		69		193		63	

Grade 8														
	Math		Science		English		S.Studies		For.Lang.		Arts		PE	
A	18	37%	12	24%	21	46%	8	17%	11	22%	44	30%	23	47%
B	19	39%	21	43%	22	48%	22	46%	32	65%	85	58%	18	37%
C	10	20%	10	20%	3	7%	17	35%	3	6%	14	10%	5	10%
D	2	4%	6	12%	0	0%	1	2%	3	6%	3	2%	2	4%
F	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	2%
	49		49		46		48		49		146		49	

SAMPLE IB RESULTS

COURSE	# OF STUDENTS	SCHOOL	WORLD
Spanish A2 HI,/ SI	17/9	6.29/5.89	6.26/5.95
French B HL/SL	2/1	7.00/6.00	5.20/4.69
Japanese Ablnitio	3	5.00	5.22
Spanish B HL/SL.	9/3	6.00/6.00	6.13/4.66
Swedish B HL/SL	2	6.50	5.82
History HL/SL	17/35	5.06/4.60	5.35/4.92
Economics HL/SL	1/73	4.00/5.33	5.11/5.01
Business & Man. HL/SL	4/5	4.25/4.40	4.71/4.76
ITGS SL	10	3.90	4.34
Biology HL/SL	12/12	3.75/4.42	4.40/4.37
Chemistry SL	6/5	3.83/7.50	4.72/4.27
Physics HL/SL	10/26	4.50/4.31	4.58/4.36
Mathematics HL/ SL.	10/20	5.40/5.50	4.69/4.90
Math Studies SL	11	5.78	4.73
Computer HL/SL	2/11	5.00/4.10	3.98/4.19
Visual Arts HL/ SL	10/3	5.10/5.33	4.65/4.43
Music HL /SL	4/10	4.00/3.89	4.72/4.84



SAMPLE PERCEPTION DATA - PARENT SURVEY RESULTS

08-09	07-08	06-07	
90%	76%	84%	1. Find the instructional programs excellent or good.
68	73	76	2. Find the after-school activities program, excellent or good.
88	75	79	3. Find communication with parents is excellent or good.
84	80	65	4. Find the attention given to moral and ethical behavior is excellent or good.
95	79	80	5. Strongly agree or agree that the behavior code and procedures are effective.
97	95	93	6. Strongly agree or agree that the report card effectively informs them of their child's progress.
86	74	77	7. Are very satisfied or satisfied with the quality of teaching.
90	72	81	8. Strongly agree or agree that homework programs and procedures are effective.
84	93	87	9. Strongly agree or agree that the school has a positive influence on their child.
83	92	84	10. Are very satisfied or satisfied with the amount and type of learning their child is doing.



SAMPLE SCHOOL PROCESS DATA

Based on what the data reveal, these are the things which could be modified or replaced.

1. Statements of intended learning	
2. Principles of learning on which the curriculum is based	
3. Forms of and/or procedures for student assessment	
4. Instructional practices (required/suggested)	
5. Sequence of delivery	
6. Time allotted	
7. Location(s) of delivery	
8. Grouping of students	
9. Staffing	
10. Organizational plan (teacher leaders, make-up of teams	
11. Required qualification of teachers	
12. Material resources	
13. Professional development model/options	
14. Allotted financial resources	



SAMPLE SCHOOL PROCESS DATA

Processes for Teaching Reading—Grade 1

1a	Instructional Strategies	2a	Assessment Strategies	3a	Groupings
1b	If reading at or above grade level — regular using Reading Recovery strategies. instruction with classroom teacher	2b	All students assessed at the beginning of first grade level All students assessed using the Text Level and Distinction subtests mid-year	3b	Regular students are grouped in the classroom by ability and by Family Learning Teams.
1c	If below grade level and in the bottom 20% of the class — individual instruction with resource staff as part of the formal Reading Recovery	2c	Same as above.	3c	Reading Recovery students are grouped in the classroom by ability and by Family Learning teams.
1d	If below grade level and not in bottom 20% of the class — Literacy Group instruction using Reading Recovery strategies	2d	Same as above.	3d	Literacy Group students are grouped in the classroom by ability and by Family Learning Teams.
1e	If not able to graduate from Reading Recovery program into Literacy Group or regular classroom — referred to the resource or special education program staff for additional assessment, or to receive additional ESL instruction.	2e	Same as above.	3e	Students grouped by program.

EXAMPLES OF LEADERSHIP PROCESS DATA

- Percentage of faculty meeting discussion and action items related to student achievement.
- Percentage of professional development activities directly related to classroom practice that is, in turn, related to student achievement.
- Percentage of parents who agree or strongly agree with the statement, "I feel welcome to visit my child's classroom at any time."
- Frequency of recognition of teacher best practices.
- Percentage of A-level tasks on daily prioritized task list directly related to improved student achievement.
- Percentage of faculty members with student achievement practices in assessment, curriculum, and instruction at the "distinguished" level according to a collaboratively scored rubric of professional practices.
- Percentage of certified staff members' available time devoted to student contact.
- Percentage of students with identified academic deficiencies who are rescheduled for additional assistance within 30 days of the identified need.
- Percentage of leader-initiated parent contacts related to academic achievement.

EXAMPLES OF SCHOOL PROCESS DATA RELATED TO CURRICULUM

- Percentage of students who are one or more grade levels below current grade in reading who receive targeted assistance.
- Percentage of classrooms that allow multiple opportunities for student success.
- Percentage of finals with failing grades that students may resubmit so that they have the potential for success.
- Percentage of students participating in advanced classes.
- Percentage of students participating in "pre-advanced" classes.
- Percentage of leader visits in which the actual classroom activity corresponds to the planned activity.
- Percentage of physical education classes incorporating academic content and assessment in writing, reading, mathematics, or science.
- Percentage of music classes incorporating academic content and assessment in writing, reading, mathematics, or social studies.
- Percentage of art classes incorporating academic content and assessment in writing, reading, mathematics, science, or social studies.



INTERSECTING DATA

One type of data on its own is insufficient. The picture emerges ONLY when we intersect data.

EXAMPLES OF INTERSECTING TWO TYPES OF DATA

- Do students who attend school every day achieve better? (demographic/learning)
- Do students who regularly read out loud have better comprehension than those who don't?
- Do students who are taught math in real life contexts achieve better on typical math tests?

EXAMPLE OF INTERSECTING THREE TYPES OF DATA

- Do students who are non-native speakers of English who claim to like school write to a higher standard than those who claim they do not really like school?

EXAMPLE OF INTERSECTING FOUR TYPES OF DATA

- Are there differences in writing achievement (learning data) for students who have been in our school at least three years (demographic data) and who report they enjoy school (perception data) by particular instructional approach (process data)?

WHAT KIND(S) OF DATA?

	Demographic	Perception	Learning	Process
1. Have student scores on standardized tests changed during the past several years?				
2. What assessment tools are in regular use in classrooms?				
3. How did students score on the any external exams?				
4. What programs have operated in the school during the past five years?				
5. What instructional strategies are in regular use at the school?				
6. What are parent, student, and staff perceptions of the learning environment?				
7. Do students who attend school every day get better grades?				
8. Do students with positive attitudes toward school do better academically, as measured by teacher-assigned grades?				
9. Did students enrolled in interactive math programs this year perform better on standardized tests than those who took traditional math courses?				
10. Is there a difference in how students enrolled in different programs perceive the learning environment?				
11. Is there a gender difference in students' perceptions of the learning environment?				
12. Do students of different ethnicities perceive the learning environment differently, and do they score differently on standardized achievement tests consistent with these perceptions?				
13. Which program this year is making the biggest difference in achievement for at-risk students, and is one group of students responding more successfully to the program than are other students?				
14. Is there a difference in students' reports of what they like most about the school according to whether they participate in extracurricular activities?				
15. Do students who participate in extra curricular activities achieve more academically than students who don't participate?				
16. What instructional process did the previously non-English-speaking students enjoy most in their all-English classrooms this year?				
17. Are there differences in achievement for 8th grade girls and boys who report that they like school, by the type of program and grade level in which they are enrolled?				



WHAT QUESTIONS? WHAT INTERSECTIONS?

Write a question you would like to explore the answer to	What data (include types) do we have or need to answer the questions?



SAMPLE DATA CHART

School Name:				
Learning Results				
Indicator	Year 20__-20__	Year 20__-20__	Year 20__-20__	Facts About Our Data
Based on External Assessment Data				
Based on Common Assessment Data				
Based on 'chunk' Assessment Data				
Based on on-going Assessment Data				
Perception Data				
Student Satisfaction or Perception Assessment				
Alumni Satisfaction or Perception Assessment				
Parent Satisfaction or Perception Assessment				
Teacher Satisfaction or Perception Assessment				
Administration Satisfaction or Perception Assessment				
Community Satisfaction or Perception Assessment				



School Process Data				
Percentage of contextual assessment				
Amount and type of feedback in use				
Percentage of team time on looking at results				
Percentage of lecture in use				
Percentage of time for whole group instruction				
Types of differentiation in use				
Demographic Data				
Average Daily Attendance				
Percentage of Students being Tutored				
Percentage of Students in Most Rigorous Courses				
Percentage of students in co-curricular activities				
Number of Parent Conferences Regarding Discipline				
Percent Mobility				
Percent Special Needs				
Percent English as a Second Language				



Data Set #1: Middle School

The following two sets of data are from the same group of 250 middle school students.

1. **Report Card Data:** (from Unit and on-going assessment quadrants). These data were compiled from three report card periods. They are based on the grades given by teachers on report cards. Each percentage represents the % of students who, according to the report cards, are in each of the categories.

	Need significant improvement	Meeting Expectations	Exemplary
Writing	2%	13%	85%
Mathematics - application	55%	40%	5%
Mathematics - calculations	15%	73%	12%

2. **Standardized Test Data:** These data are from a standardized test given in grades 4-11 annually. The norm group for these comparisons was 'national' - students in state schools.

	Not meeting grade level expectations	Meeting Expectations	Exceeding Expectations
Writing	37%	60%	3%
Mathematics - application	50 %	40%	10%
Mathematics - calculations	5%	77%	18%

DATA SET #2: STUDENT PERCEPTION/TEACHER PREDICTIONS

The teachers of students in grade 9 were asked to PREDICT how their students would answer each question. The data show the percentage of students that the teachers predicted would respond in each category. The student data show the percentage of student who actually responded that way.

