ERB ANALYSIS AS A TOOL FOR TEACHERS

by Rod Gilbert and Doreen Howell, Regents School of Austin

Note: This article has been prepared from an audio recording.

In 1996 Regents School of Austin had the wisdom to adopt the Comprehensive Testing Program (CTP) published by the Educational Records Bureau (ERB) as its annual standardized achievement tests. Over the years there were many times, just out of sheer exhaustion and busyness we would take the test, send it in to be scored, give a cursory review of the results and just like other schools, we would "smile and file." In the last five years, we determined that if we are going to use the test, then we should use it to help teachers. We set out to find ways to capture the data so that teachers could get another insight into the journey of the children that were coming their way. Our purpose in using the CTP is:

> To maximize the teacher's ability to understand each individual child's strengths and weaknesses that can be detected by testing so that the teacher is equipped to respond with confidence and make every effort to see that the child's needs are being met and to demonstrate to the teacher their own strengths and weaknesses through multiyear trend analysis.

The first thing you must do when using the CTP data is to realize that this testing battery is not a "high stakes" test and therefore administrators, teachers, and parents should not become stressed out about outcomes in one year alone. There is a lot to learn about your school through data received from testing, but no decisions about curriculum, teachers, or students should be made from one year alone. Many times when we have shared data with teachers or parents, they said, "That affirms what I suspected."

Here are three ways to make data helpful to the teachers:

Rod Gilbert serves as the head of school at Regents School of Austin. He was the head of the upper school for four years, and then he became the head of school seven years ago. Prior to his start at Regents in 2003, he served as the founding assistant headmaster of Trinity Academy of Raleigh in North Carolina. Doreen Howell is the associate to the head of school at Regents School of Austin. She is currently in her 21st year with Regents, thirteen of which she served as head of grammar school. She is the founder of Texas Colloquium, an organization for administrators of classical Christian schools in Texas, and is the co-founder of the Regents Institute for Classical Educators (RICE).

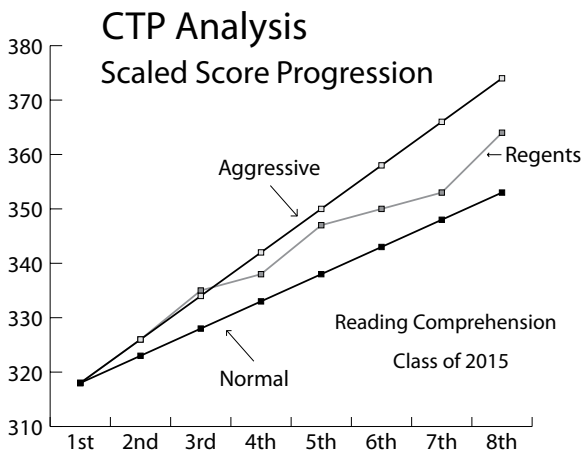
1. Show teachers how their contributions usher students through their educational journey.
2. Teach teachers to read reports and find information about their current students.
3. Help teachers see their own strengths and weaknesses in multiyear trend analysis as they strive to be the best educators they can be.

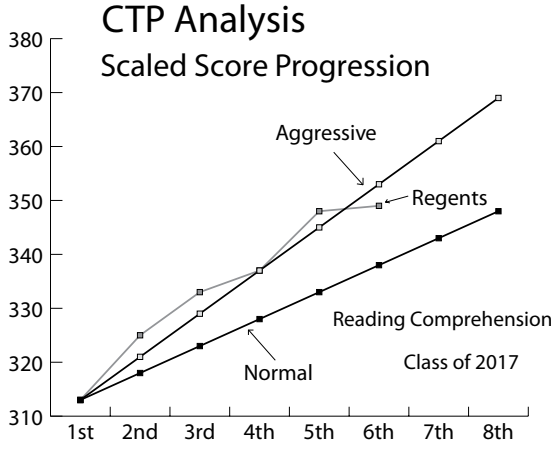
TEACHER CONTRIBUTION

Using trend analysis of *scaled scores*, we learned to track a class through their eight years (1st–8th grade) taking CTP exams at Regents by creating a graph that looks a lot like a graphic on the Weather Channel showing a hurricane's predicted course. Imagine Hurricane Ralph bouncing up the East Coast of the United States. A cone-shaped graphic shows us potential and likely pathways as it moves north from Bermuda to North Carolina.

We begin with the first year the class takes a particular section of the test. We only graph the seven tests that are common through all the grades: Verbal Reasoning, Vocabulary, Reading Comprehension, Writing Mechanics, Writing Concepts, Quantitative Reasoning, and Math 1 and 2.

In order to show progress or lack of progress in these areas we needed to know the average progress, in scaled scores that the test creators would expect from one year to the next. Our ERB Member Services representative's response to that question was: "In the Verbal Reasoning and in each of its subtests (Vocabulary, Reading Comprehension, Writing Mechanics, and Writing Concepts), a 5–8 point increase in scaled scores would be expected. In the Quantitative Reasoning and in its subtest of Math, a 10–13 point increase in scaled scores would be expected." Using a 5-point increase as an expected normal increase, we created the lower line on the graph below. And the upper line is created by an aggressive 8-point increase. If we were showing Quantitative Reasoning or Math, the lower line is created by 10-point increments and a more aggressive upper line is created by 13-point incremental increases. Then taking the rounded average mean scaled score found on the Administrative Summary of the test, we plot the middle line from year to year to show the actual Regents average.





The information in the above graph shows teachers their part in this class's progress. This is a picture of Reading Comprehension within the same year for the Class of 2015 and the Class of 2017. Think of these classes as hurricanes—they are bumping along each year and we are trying to give a general prediction of where they might show up the next year. This is a quick way for school leaders to see that we are delivering what we say we are from year to year. This is also a quick way for our leaders to see that these classes are progressing just as we would hope they would progress.

According to that five- and eight-point progression, if the class were to progress five points every year it would be a respectable increase. That is good. We are not teaching to the test but we are expecting them to progress at a reasonable rate. We are not trying to run along that hot pink line or force every class to function at a high level, we are just trying to see where we are. We have tracked the Class of 2015 from first grade all the way through eighth grade and you can see their bumps along the way, but they have always been "in the cone." The eighth grade teachers were encouraged that all the work they had done through the year helped the class progress toward a strong entrance into high school. Remember that a multiyear trend analysis gives you a better picture of progress. We have all experienced the traumas that can sometimes happen on testing days. If we made decisions based on those one-day experiences, we would not be doing a service to anyone. It is amazing the encouragement that can come with these simple charts.

KNOWING THE CURRENT STUDENTS

One of the most valuable reports for teachers is the most current "Individual Instructional Summary" for each student in the class. With our new capability of re-forming classes through the online TestWhiz Portal, this is so much easier. When you have three years' worth of data in the portal you can also share individual student progress through the years with the teachers to show them areas of strength and weakness that carry over.

We demonstrate for our teachers how to compare independent norm Percent Content Mastery on each line with the student's Percent Content Mastery and they begin to see the strengths and weaknesses.

What is the response from the Regents faculty? Our teachers are now asking for test data before school starts in late August because they realize that they can be more proactive in working with students in areas of weakness. For example, in the chart below, Analogical Reasoning, Word Meaning, and Supporting Details are all areas of weakness. The interesting thing was that when the teacher saw this particular student's report, the teacher quickly said, "This looks like a global thinker, but we need to help this student focus on details in lots of areas." I was impressed how the teacher picked up on those generalizations across the tests.

At this point in August we ask teachers to brainstorm

ERB CTP

Teacher: Mr. Mansfield
School: Chanticleer Country Day School
Grade: 5
Student: Barker, Briana

Level: 5

Individual Instructional Summary
Test Date: 04/13
No. of Students Tested: 22
Norm: Spring

Multiple Choice Tests and Subscore Categories	Students Tested	Number of Questions: Presented	Number of Questions: Attempted	Percent Content Mastery	Average Percent Content Mastery: Grade %	Sub. Pub. %	Ind. %	+	−
Verbal Reasoning	20	40	40	67	63	66	76		9
Analogical Reasoning	20	16	16	88	58	56	66	22	
Categorical Reasoning	20	10	10	60	62	70	80		20
Logical Reasoning	20	14	14	50	72	73	82		32
Vocabulary	21	30	30	70	64	65	70		
Word Meanings	21	12	12	67	68	71	75		8
Precision	21	8	8	50	56	56	62		12
Application	21	10	10	90	66	64	69	21	
Reading Comprehension	22	32	32	57	68	70	74		17
Explicit Information	22	10	10	46	67	72	75		29
Inference	22	12	12	71	74	76	80		9
Analysis	22	10	10	56	65	61	66		10
Writing Mechanics	20	40	40	55	66	72	68		13
Spelling	20	9	9	56	58	62	57		1
Capitalization	20	8	8	63	81	83	79		16
Punctuation	20	10	10	30	59	70	68		38
Usage	20	13	13	69	68	74	70		5
Writing Concepts & Skills	21	40	40	77	64	77	73	4	
Organization	21	12	12	75	69	75	71	4	
Purpose, Audience, Focus	21	8	8	75	61	79	75	25	
Supporting Details	21	11	11	91	56	72	66		14
Style and Craft	21	9	9	67	73	85	81		6
Quantitative Reasoning	22	45	45	47	55	52	53		3
Comparison	22	18	18	56	65	57	59		3
Extensions/Generalizations	22	15	15	40	42	43	43		14
Analysis	22	12	12	42	57	55	56	1	
Mathematics 1&2	21	60 #	60	65	70	61	64	19	
Number Systems and Number Theory	21	9	9	78	76	56	59	17	
Numbers and Number Relationships	21	10	10	90	76	69	73	15	
Geometry and Spatial Sense	21	8	8	75	69	61	60		24
Measurement	21	8	8	38	73	58	62	1	
Probability	21	8	8	62	72	57	61		6
Statistics	21	8	8	63	70	67	69		18
Pre-Algebra	21	9	9	44	59	60	62		3
Conceptual Understanding	21	22	22	59	68	61	62		
Procedural Knowledge	21	21	21	67	75	62	65	2	
Problem Solving	21	17	17	71	67	61	64	7	

with other teachers on their level or above or below to find methods or objectives on which to focus during the coming year. The teacher is aware of individual students' levels of ability, but they think in terms of the whole group and have found that activities that help the needy students are beneficial to the others as well.

Once you get your teachers interested in this data, you can't stop them. It is like setting a fire. Once administrators win teachers to it, the teachers ask for it. Doreen even had a slide for the annual ERB Report at Regents that was a bunch of hungry birds looking up like a mom dropping a worm on them. The caption at the bottom said, "The teachers really want the data now." We realized that we had won. We had shattered all the scary myths of misusing standardized tests to hurt teachers or to at least scare them or parents using the data in a way that is not helpful. Once they know it is for them and it is part of their dashboard to help children, they are going to come up with ways to use the data to inform their teaching and see patterns and trends like never before.

TEACHER'S STRENGTHS AND WEAKNESSES

We were able to capture the data for many of our long-time teachers because we have years of data to review. This analysis works better for an elementary faculty that keeps their same class for most subjects than it works for an upper school faculty, although it can give insight into English and math teachers. In the review of the data, a piece of information began to appear that showed us the passions of some of our teachers. For example over a five-year period we had a teacher whose class scored highest in Word Analysis among all the tests and at the same time during those same five years her scores in Math were the lowest. In conversation with her we told her that we thought her skills in teaching Math needed some sharpening and she very quickly agreed and welcomed help to improve teaching in that area. Then we said, "But no one seems to be able to do Word Analysis better than you; your students always excel in that area and many times in Reading Comprehension." We worked on a plan to help in Math through the year and sure enough the next year Math was not the lowest score for the group and Word Analysis was still on the top. Good teachers respond to coaching, and coaching with the backing of data truly invests in teachers.

You can use these trends to help your teachers. But remember one year's worth of data does not make a trend. We believe you need three years of data to really see a strength or weakness. You can do this with one teacher in a grade level or multiple teachers teaching the same grade level.

At Regents we have the luxury of having five teachers in each grade level and we are able to rank them within the grade level and see a comparison of strengths and weaknesses among them. We have been able to use that kind of information to identify passions and see where we might be able to use a teacher as a mentor.

Most schools only have one or two teachers at a grade level. If that is the case for your school, just contact Doreen Howell at dhowell@regentsaustin.org and she will show you how to get to the same kind of information for your smaller faculty.

Just a word of caution: in our data-crazed world we must be careful about the availability of data to the general population. Transparency is good, but data like the teachers' strengths and weaknesses should be equated to information like a teacher's salary. We believe that information should not be public. Teachers bring more than specific skill sets to the classroom. A teacher may not be the best at Writing Mechanics, but she is the best when the child is going through an eating disorder because her ballet coach told her she needed to lose weight. Living life alongside these lovely children means that life is sometimes hard and messy. Demoting the child-teacher experience to simply one test would violate our classical, Christian mission. Therefore,

wisely use the data-driven decision making as a PART of our holistic view of teachers and your students, and be cautious when it comes to data sharing.

CONCLUSION

Thank you for what you do on behalf of children and families. It is a burden that you bear to mentor children each day and you are to be commended. When you add to your tool box the academic skill sets that you are trying to give them every day, you are often going to be misunderstood and I beg you to just work hard at teaching the families what you are trying to do and win them into your partnership. Invest in listening to parents and find ways to merge your vision with their vision, so that there is one cohesive vision for each child.

Use the data, improve the students and teachers, train the families to understand why we would even think of using a battery of achievement tests. I leave you with this one experience related to our use of the CTP. We have many veteran families. I had a new mom of a first grader in a parent meeting this spring and in front of 50 other families she said, "Mr. Gilbert, where do we go online to do private tutorials to make sure that my daughter can do the best that she can possibly do on the second grade year reading test?" I was going to say, in a very diplomatic way, something like, "Don't do that to your child," but before I could get it out of my mouth, two moms in the room, who have children in college, spoke up. They said something like, "You are asking exactly the same question we did in 2003. Ease up. By the time your child gets through puberty you won't even care about this. So, just hang on for a long ride and calm down." This statement does not reject data-driven decisions, but it sure puts it in perspective.

There is "gold" in the testing you do each year, but like a miner, you have to dig for it. Happy digging!