



FIVE ISSUES WITH THE COMMON CORE: ELA



The Common Core State Standards (CCSS) are making teaching and learning richer, more practical, and, in many ways, more fun! Yet, there are some issues in the CCSS that might cause us to look at teaching and learning more narrowly and rigidly than is healthy for our work with an increasingly diverse student population. Below is a brief discussion of five areas that deserve consideration if we are to avoid the CCSS becoming another academic prescription rather than a living opportunity for improved learning.

1. **Close Reading:** Should we have colder (little scaffolding) or warmer (lots of scaffolding) close reads? Timothy Shanahan and David Coleman seem to advocate for colder ones (December, 2012, Reading Today). IRA and Catherine Snow (2013) as well as Lily Wong-Fillmore (2012) seem to advocate for warmer ones. The problem with both approaches is that they represent “one size fits all.” There are two alternatives.

First, we can take a “differential approach.” For struggling readers attempting text significantly above their reading level, we should opt for warmer, first close reads. To do otherwise can cause these students to doubt their abilities as readers, if not bore them to death. At a minimum, colder first reads should be mitigated by limiting the quantity of text to be attempted. For students on or above grade level, we should be able to assign colder first reads with little trouble.

We can also take a “developmental approach.” The first few times, we help struggling students by walking them through a first read using text-handling or strategic reading strategies. Then, as they become better at using these strategies to tackle difficult text, we give them increasing independence to ensure eventual success with a first cold read of difficult text on their own later in the year.

Finally, it is suggested that close reading should include three reads. The recent Dunlosky et al study (2013) addresses the research on rereading. The paper includes bar graphs indicating significant growth for a first and second read, but the effects of a third and fourth read are nil. This suggests that the three close reads now being advocated might reasonably be limited to two for most classroom purposes.

2. **Text-Based Questions:** Finding evidence for answers in the text is a respected and necessary skill in the information age. However, a bias in the CCSS for text-based questions and answers may end up being limiting. There are two additional considerations.

First, understanding the context of the text – where it’s published, by whom, and for what purpose – is indispensable for effectively comprehending, interpreting, and using any information to be found in a piece of text.



Second, referential or “open-ended” questions that go well beyond the text - eliciting students’ points of view, personal responses, background knowledge, and evaluations - are crucial to meaningful student engagement and optimal classroom learning. There is evidence that when these types of questions are added to lessons that include typical text-based or “display” questions, students improve both in content acquisition as well as language proficiency (Long, 1983). In short, do we need to be more biased toward text-based questions than toward those that go beyond the text? Is “staying within the four corners of the text” all that we should be doing with our students? The research suggests a more balanced approach.

3. **Argumentative vs. Persuasive Writing:** To paraphrase David Coleman, “No one gives a wit about what you think!” That is, he argues to keep emotion out of expository writing and stick to the facts. Unfortunately, in the real world – whether in an op-ed piece, a business proposal, or a political speech – effective, indeed, compelling writing often includes subjective elements such as emotion, values, and personal experience. Research from the Carnegie Writing to Read study (2010) also notes that “personal responses” in writing have an effect size of 0.77 or almost two year’s growth compared to summarizing facts with an effect size of .52.

To train students systematically to eschew subjective features in their writing is to produce factual but sterile writers for the work place. We might do better to help students sort out objective from subjective elements in all writing, so that they will know how to produce as well as interpret writing for a variety of purposes.

4. **Automaticity:** Does rote learning have a role in the CCSS? It should. State officials have recently disparaged the “old” standards and the “old” California Standards Test as founded on “rote learning.” Yet, we know that deliberate, guided, rote practice leads to automaticity which supports higher-order learning and executive functioning in at least three areas.

First, we can’t process and think about what we’re reading if we are distracted by a struggle to decode letters, clusters of letters, and morphemes. Fortunately, elementary schools spend a lot of time on automaticity in phonics with good results for most students.

Second, we can’t think about problem-solving in Math if we are distracted by a struggle to add, subtract, multiply, and divide quickly and accurately. Yet, it is common for students to reach middle school or high school Algebra class with “holes” in their math facts. This means elementary schools need to do a better job at helping kids memorize their math facts – preferably orally first – if they are to be successful beyond arithmetic.

Finally, we can’t forget about writing. We can’t think about content and style in our own writing unless we are fluent with the motor skills necessary to produce letters and words smoothly and effortlessly in print. That is, without automaticity in printing, cursive, and keyboarding, students find encoding so laborious that they can’t think about the quality of what they’re writing. Since, the pencil and pen industries do not seem to be threatened with extinction because of technology, effective writers in 21st century need to be fluent in both handwriting and keyboarding. In fact, Bill Gates, in a recent interview by Charlie Rose (1/20/14) predicted that one of the next big trends in computing will be handwriting on tablets and handwriting recognition software.



However, given the technology required in the upcoming Smarter Balanced assessments, students will need to be fluent at keyboarding, probably, at least 35 words per minute. With the technology gap in the homes of wealthier vs. poorer students, fluency in keyboarding on state assessments now becomes a matter of social justice that schools have a responsibility to address immediately.

5. **Tiered Vocabulary:** The CCSS (Appendix A) promote a healthy focus on vocabulary development with an emphasis on tier 2 and tier 3 words. Both levels are indispensable to academic success. Perhaps that is why tier 1 words do not seem to be a part of the CCSS. The standards explain these two types of words in terms of "frequency of use," tier 3 being the least frequent and therefore the most difficult. Because of their lower frequency, the CCSS advocates that we teach these terms explicitly, as they are unlikely to be acquired in the course of pleasure reading. There are two problems with this approach.

The first is that these "tiers" are derived from a book by Martin Joos called *The Five Clocks* (1962). In it, he outlines five "registers," "styles," or "levels" of language use. These have come to be known as "tiers." However, the vocabulary characteristic of different "tiers" is not based on frequency but "register." That is, there are five tiers or "social registers" recognized in English. The first is "intimate" and includes a kind of "baby talk" spoken to babies, pets, and lovers. The second is "casual" and includes everyday, colloquial, and slang language. The third is "consultative" or the kind of standard American English (SAE) spoken between doctor and patient or teacher and student. The fourth is "formal" and includes the language used by experts and specialists or in formal settings. The fifth is "frozen" or "static" register that includes language used in the Pledge of Allegiance, religious ritual, courtrooms, fraternities and sororities, and formal meetings (Robert's Rules of Order). Tier 1, 2, and 3 words are roughly equivalent to casual, consultative, and formal registers. Even kindergartners and first graders can understand this concept and have fun playing with synonyms of different registers.

The second issue is that recognizing tier 1 words has an "inclusive" and often "invitational" effect on students. They willingly engage with tier 2 and tier 3 words when teachers have them "grow" lists of all three tiers of synonyms in class. To ignore tier 1 is to exclude the language that many students bring to school which forms the basis for initial speaking and writing fluency. To validate it as a legitimate register promotes an "additive" instead of "replacive" approach to language learning in the classroom. And recognizing student voice in this way always means more student engagement.

Addressing these five issues can only make our work with the CCSS more powerful and effective with our students, especially with those at risk of struggling the most with the higher demands that this new curriculum places upon them. Let's not let the CCSS be a destination but rather an opportunity to get it more right this time.



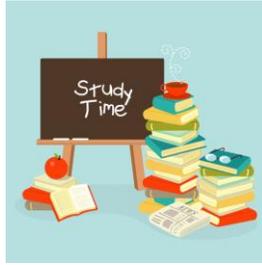
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RESEARCH ON TEACHING: GOOD, BETTER, & BEST



THE WEAKNESS OF "GOOD TEACHING"

In the past 13 years, I have worked with nearly one thousand schools in the US. I have observed thousands of classrooms. Wherever I go, I'm struck by what seems to be "good teaching" in the vast majority of classrooms K-12. In fact, two national studies have revealed that both low and high income children both make about the same progress each year in the US. Clearly, this is good teaching. Yet, there has been virtually no reduction in the achievement gap since 1992 (Allington & McGill-Franzen, *Summer Reading*, 2013, pp 1-7).

In fact, recent research summaries by John Hattie reveal that approximately 95% of what teachers do in class is helpful (*Visible Learning for Teachers*, 2012). Yet, we still see everyday that there are big differences in learning between high and low income students. Indeed, many educators today still feel that schools can have little effect on this achievement gap, that the negative effects of poverty can only be overcome by improvements in politics and the economy, not by improvements in schools.

RESEARCH TO IMPROVE TEACHING: "META-ANALYSIS" & "AVERAGE EFFECT SIZE"

However, in 1986, I was shocked by a new kind of educational research study (See Figure 1 below). It provided evidence that teaching could, indeed, overcome the effects of poverty. The study listed the results of a series of meta-analyses of nineteen teaching strategies listed in order of their power for promoting learning. (A meta-analysis is a statistical summary of the results of all the research that has been carried out to date on a given instructional strategy or variable such as cooperative learning, peer tutoring, homework, higher-order questions, etc.)

The result of a meta-analysis is a number that summarizes the average impact on student learning of a group of such studies. That number is called an "average effect size." For example, an effect size of 0.4 represents one year of learning for one year of instruction. Effects sizes between 0.2 and 0.4 are considered low, between 0.4 and 0.6 are medium effect sizes, and 0.6 to 1.0 are considered high.

In the study that I read in 1986 (Figure 1), a meta-analysis of all the research that had been done, for example, on "one-to-one tutoring" scored at the top of the list with an average effect size of 2.0, the equivalent of five years of growth for one year of instruction! On the other hand, all of the research that had been done on using "advanced organizers" with a whole class before starting a lesson came in at the bottom of the list with an effect size of 0.2 or a half a year of growth. It was the first time I realized that some instructional strategies might be as much as 10 times more powerful than others. Interestingly, the effect size for being from a high-income family was only about 0.25. In short, we could

easily compensate for the negative effects of poverty on children's learning by choosing several strategies with effect sizes higher than 0.25.

THE PERSISTENT ACHIEVEMENT GAP

These kinds of studies compel us to reconsider what we mean by "good teaching." In spite of all the good teaching in our schools, there remains an egregious achievement gap in the United States between low and high income students and between majority and minority status students: approximately 6 years by grade 12. The gap can be accounted for in two major ways.

The first is that students from these groups enter school with vastly different preparatory experiences in the home that relate to academic work in the classroom. For example, high income students come to school advantaged with higher exposure to print, literacy activities, higher-order vocabulary, explanations of how and why, and aspirations and expectations for higher education provided by their parents. The second is that high income students continue learning during the summer and low income students stagnate or slide backwards a little. By grade 11, there is a four-year difference in reading achievement between high and low income students. Approximately, 80% of that difference is attributable to summer learning or the lack thereof. (Allington & McGill-Franzen, *Summer Reading*, 2012)

Since we cannot go into homes and change the lives of parents and children, the hope for closing this gap is implementing teaching strategies and programs in school – offered both during the school year and in the summer - that achieve more than a year's growth in a year. Obviously, the US norm of "good teaching" will never be enough to erase inequality. As *Good to Great (2001)* author, Jim Collins, has stated: "Good is the enemy of great!" If we are to close the gap, we must stop doing "good" things in school and start using "better" and "best" strategies. In short, do the best and drop the rest!

THIRTY YEARS OF RESEARCH TO CLOSE THE ACHIEVEMENT GAP

Fortunately, in the past thirty years, there have been over a thousand meta-analyses of individual teaching strategies and several important summaries of these summaries. They clearly reveal a wonderful menu of good, better, and best practices that I have used for guidance in my work with teachers and principals to raise the achievement of low income and minority students.

The first important summary which I've already mentioned was done by Walberg in 1984 (Figure 1). The second was by Walberg, Wang, & Haertel in 1993-94, but it used a different statistic than average effect size (Figure 2). The third was by Marzano in 2001 (Figure 3). The fourth was by Hattie in 2003 (Figure 4), and the fifth was also by Hattie published in his book *Visible Learning for Teachers* in 2012 (Figure 5).

COMMENTARY ON THE FIVE META-ANALYSES

1. Regarding the study in [Figure 1](#), Benjamin Bloom - the author of the article in which Walberg's first study was published - suggested that we might be able to have the same effect as "one-to-one tutoring" (2.00) if we could use several of the other research-based strategies on the list in the same classroom. For example, if we "improved reading and study skills" (1.00) and implemented "cooperative learning" (0.8) and "peer and cross-age tutoring" (0.4), we might achieve an additive effect size equaling 2.2, approximately 10 times more powerful than the effect of coming from a high-income family.

2. In the study in [Figure 2](#), we notice that there are 28 variables that have been researched and listed in order of their power to cause learning. In the bottom range of the list are several variables related to "demographics" which refers to low vs. high income students. Yet, in the upper range of the list we see that most of the most powerful strategies are completely under our control. Interestingly, "classroom management" and "meta-cognitive processes" (teaching students how to learn, discussing learning, and thinking about thinking) are more powerful than "cognitive processes" (learning subject matter). Also, note that "teacher-student social interactions" is very high on the list, in fifth place! This means that we should spend some time getting to know our students as people, not just as clients in the classroom.
3. In the study in [Figure 3](#), we see for the first time a family of strategies for whole-class instruction that rivals one-to-tutoring: working with students on "identifying similarities and differences" with an average effect size of 1.61 or four years of growth for one year of instruction! This category includes helping students classify and categorize, compare and contrast as well as use analogies and metaphors. This category particularly lends itself to incorporating "non-linguistic representations" (an average effect size of 0.75), that is, using more visuals and graphic organizers to help students organize and display their ideas. Combining these strategies may actually give us an effect size in the neighborhood of 2.36!
4. In [Figure 4](#), John Hattie's first list of meta-analyses and their average effect sizes (2003) includes factors from five sources of influence: the school, teachers, the student, peers, and the home. Of course, educators have no immediate effect on attributes that students bring with them to school such as personality traits and innate abilities or interests. Nor do we have much influence over home factors such as parental support or peer factors. But the good news about Hattie's list is that the power we have in the form of teacher and school factors is undeniable and overwhelming (feedback – 1.13, direct instruction – 0.82, class environment – 0.56, challenge of goals – 0.52, etc.)
5. Finally, in [Figure 5](#), Hattie gives us his most recent, comprehensive survey of the field of educational research in the English-speaking world. Because of space limitations in this paper, I have chosen only 30 of the 150 strategies and variables that he lists in his book *Visible Learning for Teachers* (2012). You will see 10 high, 10 medium, and 10 low average effect sizes. The list of 150 average effect sizes in his book represent nearly 1000 meta-analyses, consisting of over 50,000 research studies, involving almost 300,000 students.

Some of the average effect sizes are surprising. For example, #4 is teacher credibility (0.9) and #12 is teacher-student relationships (0.72). These are a bargain in that they are powerful, yet cost no money. Reducing class size to 20 – an extremely popular solution in the US – ranks #113 (0.21), a weak strategy that costs billions of dollars. Even homework at #94 is more powerful and much cheaper (0.29).

However, in first place - with the highest effect size of 1.44 (almost 4 years growth for 1 year of instruction) - is "student expectations and self-reported grades." This means that anything we can do to engage students in conversations about their learning goals for the day, the week, the month, or the year will give us a big pay-off in learning. Also, getting students to analyze and report on how they are doing in their school work – in face-to-face interviews, anonymous student surveys, learning logs, dialogue journals, etc. – will have a powerful effect on learning.

In my schools, for example, we address this area of student expectations and self-reported grades by having teachers help their students plot a bar graph on a piece of graph paper every time the teacher gives them back a test paper with a score. Students must also make a mark on the graph paper for where they want to score on the next test. The teacher walks among the students during this activity asking three questions: "How did you score?" "How do you want to score next time?" And "How are you going to work in order to achieve that score?" This activity and these questions provide simple ways to help students set high expectations and to "self report" and "own" their grades.

FINAL THOUGHTS ON TEACHING BY JOHN HATTIE

Obviously, there are many strategies with high effect sizes for us to try. Most of them cost little or no money at all, although they often require some explanation and training. After a decade of summarizing existing research in education, Hattie has come to two interesting conclusions.

1. One is that students do their best when teachers help them think about and talk about how and what they are learning and what to do about it if they are not learning (student voice and meta-cognition). This means we should be helping students learn to be better learners - not just by giving them more assignments and telling them to "work harder" or "study more" - but by helping them self-reflect and play a role as their own teachers through self-teaching and peer-teaching.
2. The second conclusion is that the best teachers are those who are "active teachers" as well as "active learners" in their own classrooms. They should, in effect, be "students" of the effect they are having daily on each of their students. Thus, for Hattie, the first and last rule of teaching is: "Know thy effect!"

Finally, he makes a distinction between two types of teachers. The first type are "facilitators" of student learning - helping students discover their learning through inductive teaching, inquiry and web-based learning, etc.. Unfortunately, they have a low effect size of .17. The second type includes teachers who are "activators" of student learning - explaining, modeling, giving frequent feedback, asking for student feedback, setting goals, and teaching students how to learn. They have an effect size of .60!

In conclusion, the best classrooms for closing the achievement gap and achieving educational equity are (1) those that replace "good practices" (low effect sizes) with "best practices" (high effect sizes) and (2) those in which everyone is both a teacher and a learner. If there is 1 teacher and 40 students in a class, there should be 41 teachers and 41 learners.

Our challenge is to combine both the art and science of best teaching in all classrooms to dramatically improve learning for our students as they face the demands of the 21st century. It is definitely not easy to give up good practices and learn new ones, but it is definitely worth it!

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THE EFFECT OF SELECTED VARIABLES ON STUDENT ACHIEVEMENT (FIGURE 1)

RESEARCH-BASED STRATEGY	EFFECT SIZE	PERCENTILE EQUIVALENT
Tutorial instruction (1:1 tutoring)	2.00	98
Reinforcement	1.20	
Feedback-corrective	1.00	84
Cues & explanations	1.00	
Student classroom participation	1.00	
Student time-on-task	1.00	
Improved reading/study skills	1.00	
Cooperative learning	.80	79
Homework (graded)	.80	
Classroom morale	.60	73
Initial cognitive prerequisites	.60	
Home environment intervention	.50	69
Peer and cross-age remedial tutoring	.40	66
Homework (assigned)	.30	62
Higher-order questions	.30	
New science & math curricula	.30	
Teacher expectancy	.30	
Peer group influence	.20	58
Advance organizers	.20	
Socioeconomic status (high-income family background)	.25	60

Adapted from Walberg, H.J. (1984). Improving the productivity of America's Schools, *Educational Leadership*. 41, 8, 19-27

Cited in Bloom, B.S. (May, 1984). The search for methods of group instruction as effective as one-to-one tutoring. *Educational Leadership*. 4-17.

WHAT HELPS STUDENTS LEARN? (FIGURE 2)

1. Classroom Management	64.8
2. Metacognitive Processes (learning to learn)	63.0
3. Cognitive Processes (learning content)	61.3
4. Home Environment/Parental Support	58.4
5. Student/Teacher Social Interactions	56.7
6. Social/Behavioral Attributes	55.2
7. Motivational Affective Attributes	54.8
8. Peer Group	53.9
9. Quantity of Instruction	53.7
10. School Culture	53.3
11. Classroom Climate	52.3
12. Classroom Instruction	52.1
13. Curriculum Design	51.3
14. Academic Interactions	50.9
15. Classroom Assessment	50.4
16. Community Influences	49.0
17. Psychomotor Skills	48.9
18. Teacher/Administrator Decision-Making	48.4
19. Curriculum and Instruction	47.7
20. Parental Involvement Policy	45.8
21. Classroom Implementation/Support	45.7
22. Student Demographics	44.8
23. Out-of-Class Time	44.3
24. Program Demographics	42.8
25. School Demographics	41.4
26. State-Level Policies	37.0
27. School Policies	36.5
28. District Demographics	32.9

(From Wang, M.C, Haertel, G.D., & Walberg, H.J. (Dec/Jan, 1993-94). What helps students learn? *Educational Leadership*. p. 78.)

CATEGORIES OF INSTRUCTIONAL STRATEGIES THAT AFFECT STUDENT ACHIEVEMENT

(FIGURE 3)

Category	Average Effect Size (ES)	Percentile Gain	Number of studies (ES's)	Standard Deviation (SD)
Identifying similarities & differences	1.61	45	31	.31
Summarizing & note taking	1.00	34	179	.50
Reinforcing effort & providing recognition	.80	29	21	.35
Homework & practice	.77	28	134	.36
Nonlinguistic representations (visual clues)	.75	27	246	.40
Cooperative learning	.73	27	122	.40
Setting objectives & providing feedback	.61	23	408	.28
Generating & testing hypotheses	.61	23	63	.79
Questions, cues, & advance organizers	.59	22	1,251	.26

From Marzano, R.J., Pickering, D.J., & Pollock, J.E. (2001). Classroom instruction that works. ASCD, Alexandria: VA. p. 7)

"TEACHERS MAKE A DIFFERENCE"

(FIGURE 4)

FROM JOHN C. HATTIE: OCTOBER, 2003
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Influence	Average Effect Size	Source of Influence
Feedback	1.13	Teacher
<u>Students' prior cognitive ability</u>	1.04	Student
<u>Instructional quality</u>	1.00	Teacher
<u>Direct instruction</u>	.82	Teacher
<u>Remediation/feedback</u>	.65	Teacher
<u>Students' disposition to learn</u>	.61	Student
Class environment	.56	Teacher
Challenge of Goals	.52	Teacher
Peer tutoring	.50	Teacher
Mastery learning	.50	Teacher
Homework	.43	Teacher
Teacher Style	.42	Teacher
Questioning	.41	Teacher
Peer effects	.38	Peers
<u>Advance organisers</u>	.37	Teacher
Simulation & games	.34	Teacher
<u>Computer-assisted instruction</u>	.31	Teacher
Testing	.30	Teacher
Instructional media	.30	Teacher
Affective attributes of students	.24	Student
Physical attributes of students	.21	Student
Programmed instruction	.18	Teacher
Audio-visual aids	.16	Teacher
<u>Individualisation</u>	.14	Teacher
Finances/money	.12	School
<u>Behavioural objectives</u>	.12	Teacher
Team teaching	.06	Teacher
Physical attributes (e.g., class size)	-.05	School
Television	-.12	Home
Retention	-.15	School



30 INSTRUCTIONAL FACTORS/STRATEGIES & THEIR IMPACT ON STUDENT LEARNING (FIGURE 5)

FACTOR/STRATEGY	AVERAGE EFFECT SIZE	RANK (1 – 150)	EFFECT (LO-MED-HI)
Student expectations/self-reported grades	1.44	1	H
Teacher credibility in the eyes of the students	0.90	4	H
Providing formative evaluation to teachers	0.90	4	H
Feedback	0.75	10	H
Reciprocal teaching (comprehension training)	0.74	11	H
Teacher-student relationships	0.72	12	H
Meta-cognitive strategy programs	0.69	14	H
Vocabulary programs	0.67	17	H
Comprehension programs	0.60	26	H
Concept mapping	0.60	27	H
Cooperative vs. individualistic learning	0.59	28	M
Direct instruction	0.59	29	M
Providing worked examples	0.57	32	M
Peer tutoring	0.55	34	M
Home environment	0.52	44	M
Professional development	0.51	47	M
Teacher expectations	0.43	62	M
Reducing anxiety	0.40	69	M
Bilingual programs	0.37	79	M
Using simulations and gaming	0.33	86	M
Homework	0.29	94	L
Individualizing instruction	0.22	109	L
Reducing class size	0.21	113	L
Matching teaching with student learning styles	0.17	125	L
Ability grouping/tracking/streaming	0.12	131	L
Distance learning (online learning)	0.11	135	L
Teacher subject matter knowledge	0.09	136	L
Retention (holding a student back one year)	-0.13	148	L
Television	-0.18	149	L
Student mobility	-0.34	150	L

From: Hattie, J. (2012). Visible learning for teachers: Maximizing impact on learning. New York: Routledge. Pp. 20-21.

ENGAGEMENT:
THE GOLD STANDARD OF CLASSROOM INTERACTION
THE WHY, THE WHAT, AND THE HOW



"THE WHY" – SOME BACKGROUND

With the advent of the Common Core, much attention is being devoted to the topic of engagement. It no longer seems to be enough for teachers to stand up and teach and for students to be compliant in their attention and behavior. My administrative colleagues who walk classes in their schools see, by and large, well-managed classrooms with students and teachers focused on teaching and learning grade-level standards. But they still lament the fact that they're not seeing real "engagement."

Allington and McGill-Franzen (2013) report several studies that show both high and low income students are making about the same academic progress during each school year. Unfortunately, because low income and minority students start school below the line and because they either stall or slide during summer breaks, there persists a large achievement gap between haves and have not's. Add to this a second achievement gap: the gap between US students and many of their international peers. Because there is abundant evidence of schools beating the odds on both counts, all schools must necessarily be bound by an unspoken moral imperative to provide more than a year's growth each year for their local students, be they underachievers, high achievers, or anyone in between.

Clearly, this growth can and must be achieved for all children, providing for the highest gains for the lowest performers without stifling appropriate gains for those at the top. Is this possible now with even more demanding standards and assessments being adopted nationwide? Yes, but it will take more than mere compliance or obedience by students in their classrooms. It will take real "engagement." Whereas there are many instructional strategies with high effect sizes (Marzano, 2001) that we should employ to help our kids be successful in the Common Core, this paper will focus directly on the motivational and affective aspects of student engagement.

"THE WHAT" – A DEFINITION

As part of the Strategic Schooling Model, the AHA! Formula outlines the basic conditions necessary for learning: $K^2 \times I^2 = AHA!$ That is, students must be offered K^2 or complex knowledge as well as I^2 or the opportunity to interact with it intensely. When both of these conditions are met, students will experience learning, i.e., "AHA's" in the brain representing a re-ordering of their neural networks into higher-order, more complex ones. In fact, learning is made up of little conscious and unconscious hourly and daily AHA's as well as big AHA's representing life-changing breakthroughs.

It's probably safe to assume that K² is now being provided by the new Common Core. I² would represent the instructional goal of providing the conditions necessary to achieve a maximum number of interactions per kid per minute with complex knowledge. With even more demanding standards than before, our ability to achieve I² for our currently underachieving students becomes a moral imperative.

Achieving I² through obedient or compliant behavior, time on task, and good classroom management is no small matter. In my experience, it results in more than a year's growth in a year. But there are obvious, qualitative differences in the kinds of interactions we witness in some classes at some times vs. others. It's the difference between simply learning vs. learning with enthusiasm, with motivation, with a personal interest, with some personal investment, a stake in the game, in short, with "heat." So, for purposes of this paper, "engagement" is defined as "I² plus heat:" they want to learn it, and believe they can learn it!

"THE HOW" – A MOTIVATION FRAMEWORK AND STRATEGIES

It's amazing that we get students to attend and work as hard as they do given the rigors of the curriculum, the sheer quantity of material to be consumed, and the ostensible detachment of the standards - old or new - relative to most kids' daily lives. Yet all teachers have been pleasantly surprised to see their students "light up" during a given lesson or activity. But how can they achieve this kind of "engagement" frequently, consistently, and predictably?

The field of motivation, especially intrinsic motivation, is a good place to start looking for answers. Over the years, my colleagues and I have explored many practical strategies to improve student motivation reliably and predictably. Our premise has always been that teachers should work smarter, not harder, but that we should help most students learn to work both smarter and harder.

With today's research, it seems clear that a capacity for hard work, perseverance, and delayed gratification - indeed, "grit" - can actually be promoted and taught to students (Toshalis & Nakkula, April, 2012). Since not everyone comes to school pre-motivated and with the built-in character traits that will make them winners in a competitive 21st century economy, it becomes our duty to cultivate the non-cognitive or "soft skills" so necessary for our students' success as they confront their schooling and occupational challenges in the future (Partnership for 21st Century Skills, 2008).

There are four domains of motivation that offer a framework of approaches to get students to work smarter and harder in school in socially acceptable ways. In fact, the strategies within each domain can often be so powerful as to promote "engagement."

1. **Relationships** – How many times have you or a friend said, "I didn't do that well, because I didn't like the teacher." When confronted with a curriculum that is often too hard, too boring, and too much for many kids, you have to ask yourself why students would be willing to work at it at all, much less with great enthusiasm? One reason: many will do it, because they love and respect their teacher or because they don't want to let their teacher down. It really makes it easier for kids do their best if they have a great relationship with their teacher.

There are at least three elements that provide a foundation for such a relationship between teachers and students. The first is to find something to like in each other. This can be achieved through social conversations about things not necessarily related to the teacher-student role, e.g., weather, clothes, food, sports, television, music, technology, hobbies, etc. The second is to cultivate respect. Teachers begin to get respect by having

students do something for them at their request, e.g., eyes up here, please pass this back, pencils down, no talking, turn to your partner, turn to page 42, etc. And the third is to offer students some voice and choice. (This element of a good relationship – “a say in your day” – is the foundation of a fifth domain for motivation or “engagement” to be explored at the end of this paper.) Suffice it to say, that these three elements cannot be carried out superficially or disingenuously. Students need to feel that their teacher is not just going through the motions and just being “relational” but is their advocate and genuinely cares about their well-being and progress.

2. **Interest** – Obviously, it’s easy to engage with things that interest us. Pat Wolfe, in her book *Brain Matters* (2001), reports that our brains actually cannot attend to something we do not find interesting.

So how do we get kids interested in learning standards which – on the surface – have little or no appeal to most kids? The easiest way is simply for the teacher to act interested in what he or she is teaching: to find some humor, joy, sense of discovery, appreciation, or personal connection with the material being worked on in class.

Fortunately, this is possible even when the teacher is not interested! All we have to do is appeal to the “as-if” mechanism in our brains (Damasio, 1994) and “fake it” as necessary. Personally, I have found that when I take a stance to be interested and find some meaning or humor in the material that I’m teaching – no matter how uninteresting it may be – “real” feelings of interest grow in the process of “acting as if” it were interesting. This makes school more enjoyable and effective for everyone.

There are more complex and difficult ways to help students find personal interest in their learning that should also be exploited. They include how we organize the material, the variety of examples we use in class, the variety of learning activities and instructional strategies we offer, the personal connections that we help students make with the material, and the hands-on activities we design.

3. **Feedback** – If you accept – as Maxwell Maltz has stated (*Psycho cybernetics*, 1960) – that our brains are goal-seeking devices, then feedback is the guidance system. The clearer the target and the more frequent the feedback, the more successful the endeavor. Witness the addiction of computer games, and you will quickly understand the overwhelming power of frequent, effective feedback related to ambitious, yet reasonably-attainable goals! Similarly, the right kinds of feedback in schools seem both to steer as well as to motivate student effort.

Unfortunately, schools have traditionally provided most students with meager amounts of nutritious feedback. Yet, it is not that difficult to improve. A teacher’s frequent use of proximity in the classroom offers the chance both to give and get feedback from students. The same is true for the frequent use of slates or white boards, a perfect “two-way” feedback opportunity.

Data walls that show whole-class performance, rank-order lists of scores (without student names), and high and gain performance charts (with student names) are all examples of effective visual feedback. Students can track their own performance with personal data charts using bar graphs or line graphs to record their progress relative to pre-set targets for each upcoming assessment.

To improve performance on assessments, teachers can provide verbal feedback or a "test chat" that helps the student answer three questions: How did I do? How do I want to do next time? How am I going to get there? Finally, in the course of everyday classroom activities, teachers can give both positive and negative verbal feedback on effort and outcomes as opposed to "talent," "intelligence," "personality," "character traits," etc. This feedback should be specific to behaviors or details of the work. And if it's negative, the feedback should be followed by a "Let-me-help-you" or a "You-can-do-better" message.

4. **Beliefs** – Beliefs can be the hidden road blocks or the hidden engines of student performance. In my work, they tend to fall into two main categories: intelligence or talent and cultural identity.

If we think we're naturally good at something, we often engage. Yet if we believe we don't have the innate ability to be a good writer, to learn math, to master a world language, to learn how to dance, or to play an instrument, then engagement is likely minimized. Why try? The antidote to this win-lose view of the world of learning is to adopt a "growth mindset" and believe in effort as the great equalizer.

Numerous books have recently summarized the research on talent vs effort: *Mindset* (Dweck, 2007), *Outliers* (Gladwell, 2008), and *Talent is Overrated* (Colvin, 2008). Not only does the belief that "effort trumps talent" lead to more engagement and better learning, it's actually true! Some of the best ways to dissuade students from a commonsensical belief in innate talent is to (1) just tell them it's not true and (2) provide frequent feedback on effort and outcomes rather than on talent and intelligence.

Finally, based on the work of Dr. John Ogbu (1978), cultural anthropologist from UC Berkeley, "involuntary" or "colonized" minorities all over the world have belief systems that often derail their engagement and subsequent achievement.

In Sweden, the colonized minority is the Finns. In Japan, it's the Koreans; in Hawaii, the native Hawaiians; in New Zealand, the Maoris; and in Australia, the Aborigines. In the US, it's Mexican and Puerto Rican Hispanics, African-Americans, and American Indians. (One might add "blue collar" or "working class" whites to this list, although that would go beyond Ogbu's work.) Although his theories cannot legitimately be applied to any individual of an ethnic group, trends across large populations reveal patterns of achievement affected by cultural identity and beliefs.

According to Ogbu, the acrimonious historical relationship between the majority and the "conquered" or "colonized" minority often results in the minority group rejecting behaviors and perceived traits of the majority. In the US, this rejection is often reflected in peer pressure not to do well in school for fear of being accused of "acting white." American Indian kids will call each other "apples" for doing well in school, red on the outside but white on the inside. Latinos may call each other "coconuts" or "vendidos" (sell-outs), and African Americans have used terms such as "oreo" or "white chocolate" to razz a classmate about working hard in school.

The antidote is to (1) explain to students how historical relationships have caused certain social and cultural trends, patterns, and beliefs to become unnecessary obstacles today and (2) provide feedback to students that publicly recognizes both "high performing" as well as "improving" students on class and school wide data walls. When

a school undertakes to give symbolic recognition (names on the wall, photos, medals, certificates, pins, wrist bands, "star cards," "assemblies," etc.) for high and gain performance, there's a "safety-in-numbers" context that's created. With so many students being legitimately recognized, it becomes ok for kids to stand up and enjoy their academic successes. When a classroom or school only recognizes the few highest performers, an elite "have vs. have not" system is set up which causes many students either to avoid success, hide it, or otherwise find ways to put up with its "slings and arrows."

SO FAR, SO GOOD!

It would seem that if we did a good job of putting into practice that which has been outlined above, we should enjoy frequent examples of student engagement in today's Common Core classrooms. In short, kids will be motivated to engage and work hard if:

1. They have great relationships with their teachers. ("I'LL ENGAGE, BECAUSE I LIKE AND RESPECT MY TEACHER.")
2. Their interest is awakened and cultivated daily by interested teachers. ("I'LL ENGAGE, BECAUSE I LIKE IT; IT'S INTERESTING AND FUN.")
3. They receive frequent, healthy visual and verbal feedback. ("I'LL ENGAGE, BECAUSE I SEE WHERE I'VE BEEN, WHERE TO GO, AND HOW TO GET THERE."), and
4. They believe their goals are attainable because they experience success, believe in the power of effort, and see themselves as the kind of people who can achieve at anything they try. ("I'LL ENGAGE, BECAUSE I BELIEVE I CAN DO IT.")

That's a lot. It's powerful. It's doable. And it works. Dozens of schools in which I've worked have used these strategies to generate high scores for low income and minority students as well as produce students who feel powerful and confident. Not only do you see it in their classroom demeanor and participation, students can't wait to take the state tests. And they can't wait to get their scores!

SO, WHAT ELSE IS THERE? – AN UNTAPPED SOURCE OF "HEAT!"

In the past few years, further research on human performance – specifically related to engagement – has come to light. One source is Daniel Pink (*Drive*, 2011) and the other is John Hattie (*Visible Learning*, 2012). Both authors – coming from different perspectives – have hit upon an element that works like a charm for helping people really engage and perform at their highest levels. That element is "voice and choice," an untapped source of "heat."

To begin, Daniel Pink outlined two competing, research-based approaches to motivation. The most popular – carrots and sticks – is commonly used by business and industry, many government institutions, and even families. It's commonsensical. We reward good behavior – often with things of monetary value – and discourage bad behavior with sanctions or punishment. This approach, although popular, seems to work best only when the task or work requires little thought, creativity, or problem-solving, i.e., when it is relatively routine.

On the other hand, for most tasks in school and in the larger world of the information-based global economy, thinking and problem-solving are required and often in teams. For these contexts, Pink reports on decades of research that supports three major factors for optimal performance: autonomy, mastery, and purpose. Autonomy means giving some "voice and choice" to employees in relation to their work. Google has even gone so far as to allow its employees to spend up to 20% of their time each week on personal projects related to the

company. Why? Because this policy has proven to significantly enhance the company's bottom line. Mastery means trying to get better and better at what we do rather than simply trying to get the job done. Purpose refers to seeing one's work connected to an enterprise larger than oneself, to a higher-order goal. He concludes that this three-pronged approach achieves engagement much more effectively than carrots and sticks in most modern contexts.

The second author, John Hattie, has revolutionized the field of education with his comprehensive summaries of research summaries (meta-analyses) together with their attendant average effect sizes. In his recent book, *Visible Learning for Teachers* (2012), he reports that the area with the highest effect size of 1.44 – the highest out of 150 areas researched - is "student expectations/self-reported grades." This effect size represents an average educational growth rate of 3.6 years per year. Even the research on "teacher expectations" with an effect size of .43 is dwarfed by the effect of "student expectations." A closely-related area is "meta-cognitive strategies" which refers to teachers and students talking about, reflecting upon, and learning about learning. It has an effect size of .69 or approximately 1.6 years of academic growth per year.

Both of these areas involve the three domains outlined by Pink, especially large doses of student voice and choice. In fact, in a recent two-day conference (Visible Learning Institute, October 10-11, 2013) organized for him by Corwin Press, Hattie spent approximately 80% of the sessions on the importance of student meta-cognitive voice and choice as a means of supporting "student expectations/self-reported grades."

Both Hattie and Pink frequently use the term "engagement" when referring to their discoveries that seem to make the biggest impact on human performance. Following are some examples of classroom activities that generate the kinds of personal involvement or engagement supported by this research. Whereas Hattie's focus has been mainly on "meta-cognitive student voice," Pink's work would suggest a powerful effect for "cognitive student voice" as well.

- 1. META-COGNITIVE STUDENT VOICE – THE BEGINNING AND END OF LESSONS -**
If we begin lessons with a meta-cognitive conversation about what we're going to learn today, why we're going to learn it, and how we're going to learn it, we are helping to set high student expectations. If we end lessons with a meta-cognitive review, asking students to reflect on how the lesson went and what was learned, we offer the opportunity for meta-cognitive student voice related to Hattie's category of "self-reported grades." This simple approach of book-ending lessons with meta-cognition and student voice is often not a part of standard practice, but it easily could be.
- 2. META-COGNITIVE STUDENT VOICE – STUDENT EXPECTATIONS -** Hattie's research lists "feedback" with an average effect size of .75 or about 1.75 year's academic growth per year. Providing feedback is one of the most important ways of helping students set high expectations. Providing students "test chats" or help in filling out their personal "data charts" are two easy ways to generate student meta-cognitive voice and choice. In this way, they have "a say" in how they're doing, how they want to perform in the future, why they're performing the way they are, and what they or the teacher might need to do to help them hit new goals in the future.
- 3. META-COGNITIVE STUDENT VOICE - STUDENT SELF-REFLECTION -** Key to Hattie's view of "self-reported grades" is student self-reflection. Some simple ways to help students achieve this include "exit tickets," entries in a "learning log," "end-of-the-semester anonymous student surveys" about how the class is going, and periodic student focus-group interviews about their learning experiences.

4. **META- COGNITIVE STUDENT VOICE – BEGINNING OF THE YEAR** – Typically, the first week of school involves organizing the class, passing out materials, and explaining rules and consequences. I see more and more teachers, however, making time and space for students to reflect on (a) what characteristics they would like to see in their teacher this year, (b) what rules and consequences would work best for them, (c) what they really want to learn most this year, (d) who they are as people, and (e) what characteristics make up a good student and a successful class.
5. **META- COGNITIVE STUDENT VOICE - DAILY CLASS ROUTINES** – There are always little opportunities every day for student voice and choice: What color pen shall I use today on the board? Shall we use white boards on this lesson? Is everyone ready? Who would like to go first or last or next? How much time do you need for this? What shall we work on first or last? Do you need a break?
6. **COGNITIVE STUDENT VOICE – CHORAL RESPONSE** – Admittedly, choral response - repeat after me - is a low level of processing. However, using it frequently during a lesson or – at a minimum – for a few minutes at the end of a lesson adds crucial cognitive student voice to the day. The chances for students to hear academic language in their own voice are minimal in even the best of classrooms. Choral response is one solution. Opportunities for use of choral response include sentence frames, good answers given by some students repeated by the whole class, key academic vocabulary and phrases repeated as they come up during or at the end of the lesson, repeating key steps to follow in writing or Math, achieving fluency in verbalizing Math expressions and formulae, etc.
7. **COGNITIVE STUDENT VOICE – REFERENTIAL OR OPEN-ENDED QUESTIONS AND DISCUSSION** – With virtually no planning at all, teachers can ask checking-for-understanding questions all day long. These are “display” questions or those to which the teacher knows the answer, e.g., “Which piece of the puzzle goes here?” or “How did the protagonist react to the problem?” On the other hand, asking “referential” questions, those to which only the student knows the answer, requires some forethought and planning. The effort – according to research by Michael Long (1983) and others – is well worth it in terms of student gains in both language proficiency and content knowledge over students who received a regimen of display questions only. It’s probably no coincidence that these “open-ended” questions that inquire about a student’s background experiences or knowledge, tastes, opinions, preferences, feelings, hypotheses, predictions, etc. promote such academic gains: they open the class forum to student voice and choice. Long says they also briefly equalize the status of the students with the teacher making them – at least for the purpose of the referential question – informational equals to the teacher.
8. **COGNITIVE STUDENT VOICE – PLEASURE READING** – There is now significant research revealing the power of self-selected pleasure reading for promoting academic gains, even on discrete-point, standardized tests. In a showdown study conducted by Shin and Krashen (2007), two six-week summer school programs were compared. One carried out a normal English-Language Arts curriculum and the other a pleasure reading program with related activities. Whereas the normal summer school program made 0% gain on one standardized test and 133% gain on another, the pleasure reading group gained 350% and 800% respectively on the two measures. A key, however, to the success of any independent reading program is student choice regarding what to read and student voice in terms of discussing what is read with someone else. Commercial

independent reading programs often violate this student voice and choice component by requiring students to choose only materials “at their level” and by making them accountable through comprehension tests rather than through discussion.

- 9. *COGNITIVE STUDENT VOICE – SLOT SUBSTITUTION*** – One of the most useful discoveries in recent years in my work has been the efficacy of “slot substitution.” As a teaching strategy. For vocabulary instruction, students contribute to classroom “grow lists” of structural word families (-at, str-, -ll-, dis-, -ive, -spect-, -graph-, -tele-, etc.), tiered vocabulary (Hi – Hello – Salutations), cognates (nation –nacion), and idioms (drives me up a wall). For, example, the teacher might start a category (suffix -ive) each week on a piece of chart paper, and students then find words to fill in the slots during the week (active, passive, intensive, expressive, pensive). The chance for kids to make public contributions to classroom word lists is engaging. Students can practice sentence frames by filling in the slots with their own contributions. In Math, they can make up their own problems to share with the class by changing the variable in one slot of an expression or word problem. In writing, students can take a favorite story and change the slots represented by the main characters, the setting, and the ending to make up their own, albeit scaffolded, story. In my own experience, every time I have used “slot substitution” in a lesson, the student reaction is immediate! The affect is suddenly more positive and energy levels go up dramatically!
- 10. *COGNITIVE STUDENT VOICE – PERSONAL RESPONSES & WHY*** – The Carnegie Corporation did a review of the literature on writing to learn (Graham & Hebert, 2010). They found numerous studies in three major categories: increased frequency of writing (the lowest effect size), programs to teach the specifics of good writing (moderate effect size), and studies on students summarizing (including writing outlines and taking notes) and writing personal responses. The effect size for summarizing was .52 whereas that for “personal responses” was the highest at .77 (.4 = 1 year’s growth). Is it any wonder that the domain with the most student voice should have the highest impact on learning? These data suggest that we should spend a good amount of time actually teaching kids how to summarize – as opposed to just assigning it. And we should teach them how to add a personal response to each summary. In support of the Common Core, we might also ask them to give a “why” for those personal responses.
- 11. *COGNITIVE STUDENT VOICE – PUBLISHED, INFORMATIVE WRITING*** – In 2000, educational researcher Doug Reeves wrote a seminal paper on the discovery of a number of “90-90-90” schools. In spite of enrollments of 90% receiving free and reduced lunch and 90% representing ethnic minorities, the schools beat the odds by having 90% of their students working at grade level on standardized tests. Among the handful of key characteristics of these successful schools was a certain kind of writing. That is, students completed error-free, publishable informative pieces of writing – once a month in elementary and once a quarter in secondary schools. This activity is a perfect venue for giving students voice and choice about their topic and how they choose to present it. Many of my schools have gone a step further by actually publishing class sets of student writings on classroom book shelves and in the school library.
- 12. *COGNITIVE STUDENT VOICE – STANDARDS-BASED PROJECT-BASED LEARNING***
– Although not yet commonplace, standards-based project-based learning promises to be a godsend for helping students learn the Common Core in authentic ways as well as practice a variety of 21st century skills (multicultural, financial, and entrepreneurial literacy; problem-solving; creativity; team skills; etc.). The essence of successful

project-based learning is student voice and choice, aided and guided by the teacher. It wouldn't be too far-fetched to consider an investment of 20% of the year (remember Google!) devoted to students working in groups to produce authentic knowledge products which they might share in one or two school wide student conferences per year. In fact, it may be the only good way to help students acquire 21st century skills using the Common Core in a school setting.

See the attached graphic for a summary of the key domains outlined in this paper for achieving student engagement in practical ways in today's Common Core classrooms. So, how feasible is it to achieve student engagement over merely compliant behavior? Can we close the achievement gap for higher and higher percentages of low income, minority students in the Common Core without it? Will students continue to be left out in the cold, without the "heat" of personal engagement?

NEXT STEPS – FIVE CONSIDERATIONS

MODIFICATIONS – First, as you consider adopting any of these strategies, think about what you already do that can be tweaked. If your students already take notes or write summaries, be sure to add personal responses and a "why." If you already use "proximity," make sure you get and give feedback while walking around. If you already tell kids the objective for the day, have them chorally repeat it along with any key vocabulary and add a "why" for that objective.

EASY THEN DIFFICULT - Second, think about what is new here for you. You might start with the easier strategies over the harder ones. For example, implementing project-based learning every six weeks or published, informative writing every month are more complex innovations. Posting a new "grow list" of three columns of spelling patterns or three columns of prefixes, suffixes, and roots, to be filled out by students each week, would be considerably easier.

CALENDAR - Third, think about when would be the best time to implement new strategies. Some lend themselves to the beginning of the year: establishing good relationships and getting to know each other; giving students voice on rules, consequences, and curricular focus areas; or starting personal data charts with bar graphs and new targets for each assessment. Others can be started whenever you have the time and energy: referential questions, choral response, exit tickets, or slot substitution in Math and Language Arts. Ideally, you might consider adding at least one new strategy a month. Finally, your first try at project-based learning or published, informative writing might come in the spring right after the state assessments.

CAMPAIGNS – Letting a thousand lights shine is never as powerful as a group of educators holding hands and consistently implementing a given set of strategies across a grade level, department, or, better, across a school. Collaboration on like tasks provides for better implementation. And, students experiencing the same strategies year after year in the same school can and will beat the negative effects of poverty and minority status.

LEADERSHIP - The engine for innovation and continuous growth in a school is a strong instructional leadership team. Both administrators and teachers must commit to a higher-order purpose and have the courage to ask their colleagues to upset their routines by trying new strategies for the sake of their students. This stance can be uncomfortable but edifying in that it brings out the best in all of us. So, take a leap of faith. Try some new things. Make them work!

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SUMMARY: SOURCES OF ENGAGEMENT

	RELATIONSHIP “... BECAUSE I LIKE AND RESPECT MY TEACHER.”	INTEREST “... BECAUSE I LIKE IT; IT’S INTERESTING & FUN.”	FEEDBACK “... BECAUSE I SEE WHERE I’VE BEEN, WHERE I’M GOING, & HOW TO GET THERE”	BELIEFS “... BECAUSE I BELIEVE I CAN DO IT.”	VOICE AND CHOICE “... BECAUSE I HAVE SOME “SAY IN MY DAY.”	
					META-COGNITIVE	COGNITIVE
Definition	Between teacher & student: including a positive social connection, mutual respect, & some student voice & choice; reflects caring, warmth, & advocacy.	Students naturally interested in or helped by the teacher to be interested in lessons, topic, materials, activities, etc.	Frequent visual and verbal feedback to students focusing on outcomes & effort, details of the work as opposed to personal traits, and results relative to ambitious targets and future changes in behavior.	Belief in dynamic rather than static intelligence or talent, that effort trumps talent, and that academic success is appropriate for everyone, not just “whites” or the “gifted” or the “wealthy,” etc.	Student reflections in speech and writing about what & how they’re learning, how it feels, setting goals, how to fix mistakes, how to do better, opinions about the learning, etc.	Student verbal and written voice & choice related to the cognitive content of the lessons (concepts, vocabulary, skills, operations, protocols, etc.).
Teacher Strategies	<ul style="list-style-type: none"> *Chat with students about topics not related to your role. *Get students to do something at your request. *Give them some incidental or significant, meta-cognitive or cognitive say in their day. 	<ul style="list-style-type: none"> *Act interested in your lesson, the material, the activities, students and their work. *Change the pace of instruction, use interactive or hands on activities. *Connect to students’ background knowledge, experiences, preferences, & opinions. 	<ul style="list-style-type: none"> *Provide visual feedback with classroom data walls and personal student data charts. *Provide verbal feedback with “test chats.” *Provide verbal feedback on effort and outcomes; negative feedback is always followed by a “Let me help” or “You can do better” message. 	<ul style="list-style-type: none"> *Explain the advantages and disadvantages of static vs dynamic mindsets related to intelligence and talent. *Explain the false notion to “involuntary” minorities that doing well in school is “acting white.” *Provide legitimate recognition for academic success (high and gain performance) to high numbers of students to provide a context of “safety in numbers” for students threatened by high academic performance. 	<ul style="list-style-type: none"> *Introduce lessons with a “what” (objective, key vocabulary, & activities), and a “why.” *Debrief lessons by having students say what they learned & how it felt (exit tickets, learning logs, white boards, discussion, quizzes) *Give students some voice and choice in how the lesson is carried out (sequence, pace) *Get student input in the fall on rules, procedures, content, teacher and student traits, etc. 	<ul style="list-style-type: none"> *Ask frequent referential questions. *Students select their own independent reading materials & topics for informational writing. *Elicit frequent personal responses. *Use choral response and white boards. *Use slot substitution for students to generate their own examples, math problems, & “grow lists” of vocabulary, sentence frames, grammar, etc. *Have students produce & exhibit standards-based projects.

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