CSC Special Meeting
October 23, 2014

Integrated Gifted & Highly Gifted and Talented (GT/HGT) Program

Cory classrooms are a wonderful mix of learners. Cory is a magnet site for the Highly Gifted and Talented

(HGT) program, and has adopted an integrated model of HGT where both HGT and non-GT/HGT students are in the same classroom, led by GT Endorsed teachers. In this model, GT and HGT students are provided opportunities for deeper learning within the focus of the class curriculum, rather than in pull-out classes which may offer enrichment in topics unrelated to class work.

Teachers differentiate their instruction and focus on using gifted teaching strategies in their teaching so that students at all academic levels can benefit. Every student at Cory is challenged in their areas of strength and supported in areas where they need more support.

Our GT/HGT Integration Model offers our students the following benefits:

- GT/HGT students have a core of academic and social peers within each classroom that they interact with daily, which is an important aspect of gifted and talented education.
- The integrated model allows our students to interact with intellectual as well as same age peers, which provides a wealth of opportunities for social growth.
- GT/HGT students are afforded the opportunity to have "the elementary school experience" at the same time as their exceptional academic needs are met.
- Students at all academic levels and performance benefit from the integrated HGT model because differentiated teaching strategies allow each and every student to be challenged in areas of strength and supported in areas of growth.

We have a part-time GT Coordinator who supports our classrooms by ensuring that GT testing is completed, Advanced Learning Plans are written and that our GT students receive the supports they need to grow academically.

We realize that our integrated program may not be ideal for every GT/HGT child. Each school in DPS offers a variety of GT/HGT programming to meet different children's needs. We encourage all families to learn about each program so they can make the best decision for their child.

Why Did the Math Model Change?

"The instructional strategies that teachers use with groups have a greater effect on achievement than the actual placement itself" (Rogers, 1998).

Common Core State Standards- The Common Core State Standards ask students to demonstrate cognitive complexity, reason abstractly and quantitatively, use mathematical tools and problem structures strategically and accurately solve problems. In all math groups, students will be exposed to these practices at the pace and depth that match their needs.

Instructional best practices, supported by Common Core State Standards, require students to do the following:

- Think deeper, with more advanced, multi-layer problems
- Move from procedural knowledge to application of concepts within real-world problems
- Develop problem solving skills throughout the entire school year increasing in depth, complexity, rigor and understanding of mathematical concepts.

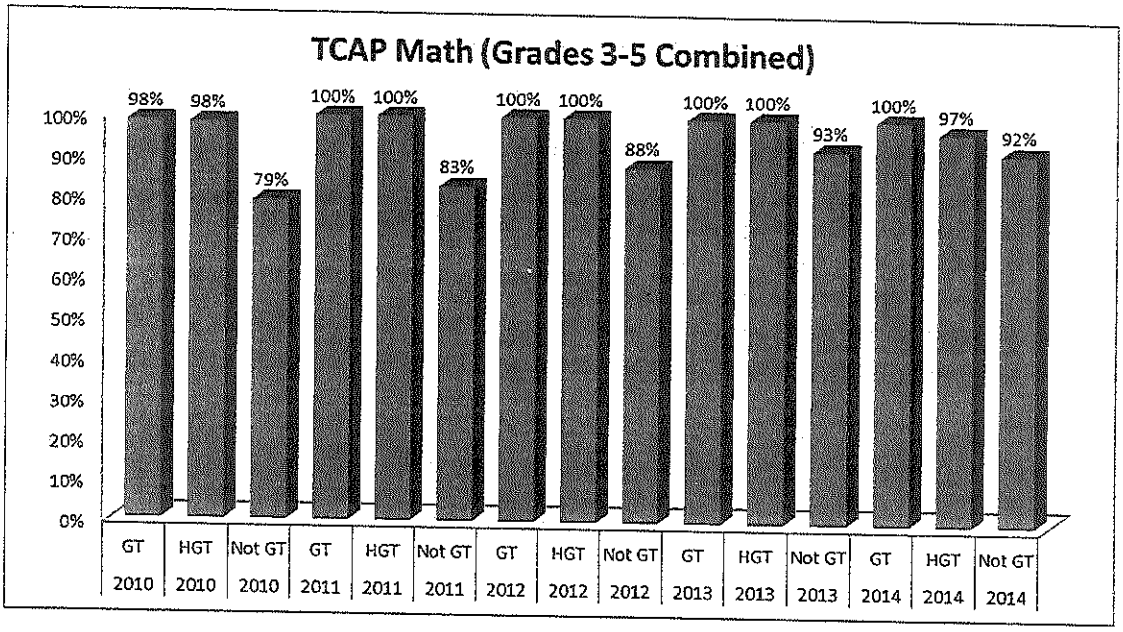
Social-Emotional: Our classrooms are set up with differentiated supports to scaffold the social-emotional component for all students, including GT/HGT students. Growth inhibitors, such as perfectionism, ultra-competitiveness, and the inability to explain work because the student's understanding is intuitive, are some of the characteristics of our unique population. The ICM, Integrated Curriculum Model, helps to diffuse competition and balance empathy through flexible grouping. This model provides leadership opportunities as well as opportunities for collaboration and creates a classroom of learners who have meaningful dialogue vs. debate. Problem solving and critical thinking are necessary life long skills that are developed through daily practice. Students learn to persevere through challenging work, allowing them to explore multiple strategies to solve problems, discuss those problems and explain their process. We have found that our highest learners who "get it" intuitively are having a difficult time explaining their thinking. Being around other learners who can explain their thinking is helping our highest learners persevere and challenge themselves.

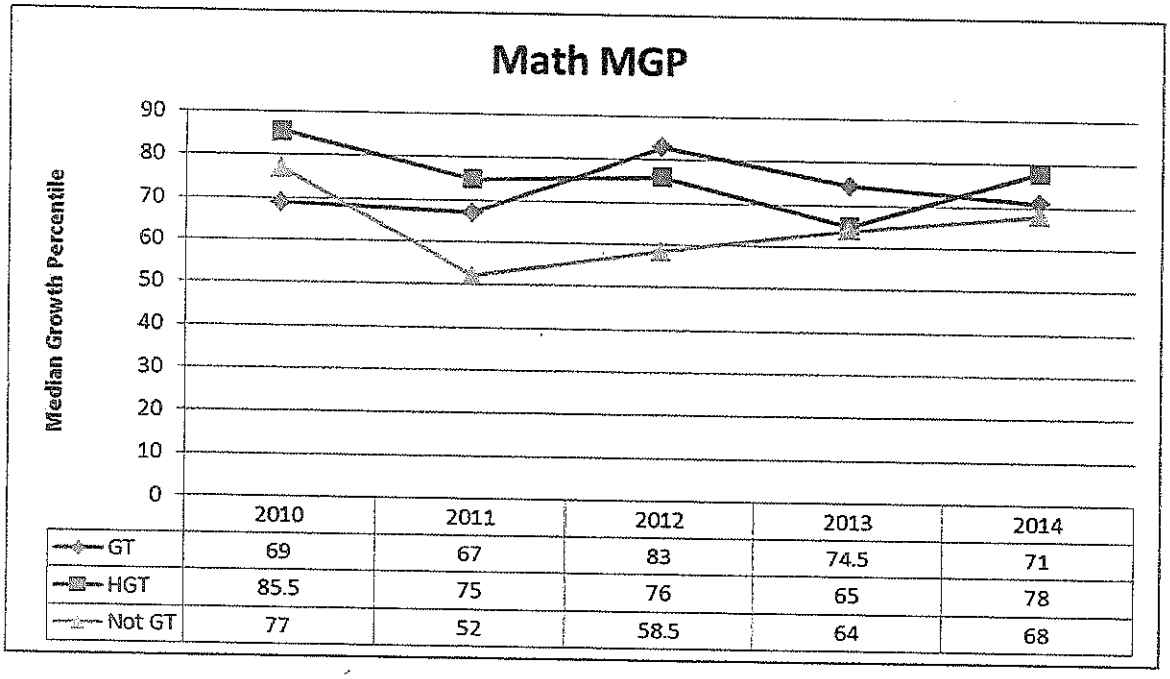
Instructional Time & Building Community: In the past, multiple transitions led to loss of instructional time at the 4th and 5th grades. Some students had up to three transitions and three teachers in a day. This year's model provides flexibility within the classroom, both within content areas and cross content. It has also provided the time to address more social/emotional needs and concerns during homeroom. Making connections with teachers and classmates is important for student learning and risk taking; having only two teachers for a group of students allows time for these connections to be nurtured.

Difference between 1st/2nd/3rd grades and 4th/5th grades:
In terms of looking at the whole child and developmental appropriateness- 1st, 2nd and 3rd grade teachers teach all subject areas throughout the day. 4th and 5th grade teachers specialize in content areas.

Data- Overall, our math performance is strong in both status and growth, and has remained that way for the past five years.

Status Slide- This slide shows that overall math performance was not significantly impacted when we changed the model during the 2013/14 school year.





	2010	2011	2012	2013	2014
GT	69	67	83	74.5	71
HGT	85.5	75	76	65	78
Not GT	77	52	58.5	64	68

Growth Slide All students have remained above the MGP of 65 for the past five years.

Non-GT students have grown over the past five years to an MGP of 68.

GT student went down in growth from 2012 to 2014.

How the Decision was Made

The above information caused us to revisit how we do our math groupings at Cory. In the spring of 2014, we consulted with the following groups to decide upon the 4/5 math model change:

- Cory School Leadership Team (representatives from 1st, 2nd, 3rd and 4th/ 5th grade teams)
- DPS Math Department (Elaine Boyer)
- DPS GT Department (Rebecca McKinney)
- Instructional Superintendent (Diane Smith)
- CSC (with additional representatives from 1st and 4th/5th grade teams)

Mythbusters

HISTORY- WHAT HAPPENED AND WHEN? In the past, when we had two classes each at the 4th and 5th grades, we successfully utilized an in-class enrichment model. When we added more classrooms, we needed to change our model. One of the biggest decisions in making the model change two years ago was to keep the platooning strategy which the 4th/5th teachers at Cory have used for over 16 years. "Platooning" means divvying up instruction according to subject area, with a classroom of students rotating to different teachers. This practice allows teachers to narrow and deepen their focus in content areas, which in turn, allows them to differentiate more effectively.

In the 2013/14 school year, we had three classes of 4th graders and three classes of 5th graders. We needed to find a way to configure math that would work within the platooning model with this additional classroom. We tried regrouping for math by having two mixed-ability groups and one enrichment group, but discovered that it led to added transition time, loss of classroom community, and reduced opportunities for interdisciplinary instruction. Returning to a model of enrichment within the classroom allows us to meet the needs of all students, as it has successfully in the past (as well as the other reasons listed in the "Why Did the Math Model Change?" section above.

DIFFERENTIATION: We want to be VERY clear that math differentiation has NOT been dropped. We have simply gone back to differentiating and enriching within all classrooms, as we had done in grades 4 and 5 in years prior to last year. Based on parent questions and concerns, we now realize that additional information needed to be provided to explain why we have gone back to this model.

How All Students Receive Support

"The two most frequently cited studies are meta-analyses conducted by Slavin (1990) and Kulik and Kulik (1992). Both studies found that ability grouping has essentially no effect on student achievement across all ability levels." Taken from http://educationnorthwest.org/sites/default/files/12.99.pdf

Students receive differentiated instruction based on their individual needs in every classroom. Differentiation includes supporting struggling students and providing opportunities for enrichment for all students. Groupings include:

- 4th and 5th Grade- All classes are mixed ability groups with flexible grouping occurring in the classroom based on student needs. Students are receiving differentiated instruction within their classroom, at their grade level.
    - Everyday Math Curriculum has been modified to better align with CCSS, including:
        - Pacing is adjusted to ensure students are developing deeper understandings of the concepts
        - Focus is on application of concepts in order to develop critical thinking skills
        - Enrichment opportunities are provided to **all** students
        - Other curriculum to enrich our math programming includes Zaccaro Challenge Math, Sunshine Math, Problem Solver and Exemplars.

All students are receiving a more challenging model because our model is now more flexible and students can use different extensions, and a variety of activities, that meet different interests and instructional needs.

How All Teachers Receive Support

- Professional Development
    - 4th/5th Math/Science Teachers were sent to a GT/HGT Conference in summer of 2014 around math
    - All teachers receive weekly PD around Student Learning Objectives, collaboratively within c area teams
    - All teachers receive PD around our Unified Improvement Plan
    - All teachers receive opportunities to attend PD through DPS and other avenues, depending on their personal preferences and professional needs.
- Part-Time GT Resource Teacher available for all teachers at their request.
- *Cory teachers are GT Endorsed and receive yearly PD around GT/HGT Strategies
    - Beginning in 2013, DPS now requires all new to Cory teachers to become GT endorsed within their first year at Cory; teachers who were at Cory *before* 2013 are grandfathered in and are not required to be GT endorsed. However, many of our team members have taken the opportunity to become endorsed on their own time and at their own cost, despite the fact that they are not required to do so. Currently, we have the following number of staff endorsed:
        - Classroom teachers: 8 out of 15.
        - Support Staff: 2 out of 5
        - Specials Teachers: 1 out of 3

- Weekly Collaborative Planning
- Weekly Classroom Observations and Feedback Conversations with School Leader and Instructional Superintendent (rotating through different grade levels throughout the year).
- Para Support
    - Interventionists- Paid by Mill Levy money to provide supports to the lowest students
    - Paras- Paid by PTA and through our school budget to provide supports to the classroom (needs determined by classroom teacher)

Additional Resources

- What is expected? Student Work Examples (attached)
- Ability Grouping in Elementary Schools (attached and link below): http://www.davidsongifted.org/db/Articles_print_id_10618.aspx
- Growth Mindset Article (attached)
- PARCC Practice Test Items: http://www.practice.parcc.testnav.com

Name L Date 10-10-14 Time

Open Response UNIT 2

Progress Check 4

Missing Digits

Excellent

Find digits A and B in the number below so that the following conditions are true. Show all of your work.

- The 5-digit number must be divisible by 4.
- The 5-digit number must be divisible by 9.
- Digit A cannot be the same as Digit B.

A

1 2 A 3 B

What is your solution? Explain how you used the divisibility rules to find your answer. Use sentences, number models, and visual models to ~~show your~~ thinking.

12,132

A = 1

B = 2 Explanation on back

Visual

3,000

30,000 | 20 | 5 | 8

4 | 12,000 | 80 | 20 | 32

9 | 9,000 | 2700 | 270 | 27 | 45

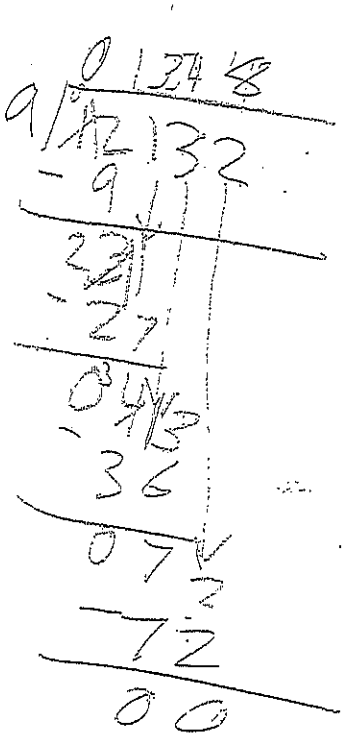
12,000 + 80 + 20 + 32 = 12,132

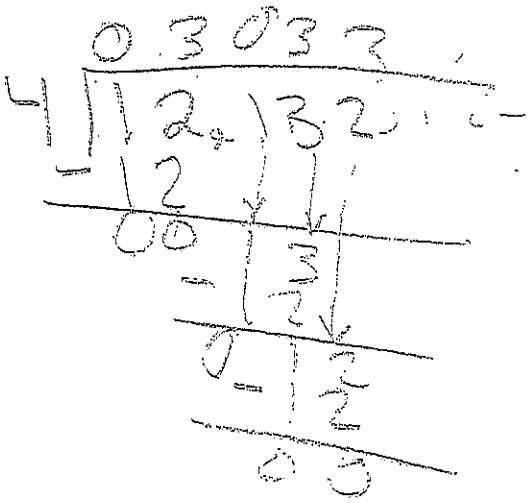
9,000 + 2,700 + 270 + 45 = 12,015

it could end in 32 or 36
(B could be 2 or 6)

○ = possible
✗ = not possible

1+2+1+3+2 = 9
1+2+2+3+2 = ~~10~~
1+2+3+3+2 = ~~14~~
1+ ...





Open Response
10-10-14

The the sutution I came up with is 12,132. You replace the A with a 1 and B with a 2. I knew that because the digit in the tens place is a 3, and since it needs to be divisible by 4 the digits in the ones and tens places have to be divisible by 4, so I found all the number that are between 20 and 39. They were 32 and 36, so I knew that B had to be replaced by a 2 or a 6. So to find what A could be I knew that for it to be divisible by 9 I had to add all the digits together, and if their sum was divisible by 9 the whole number was divisible by nine. So at first I tried A as 1 and B as 2. I

so is 12,132

added them all together like
this: 1+2+1+3+2=9, and 9 is
divisible by 9. That way worked
because the last two digits
were divisible by 4 (32÷4=8)
and the sum of all the digits
added together equaled a
number that was divisible
by 9. So I knew it was
right, but to check my
work I did 12,132÷9=1,348
and 12,132÷4=3,033 So I
know the solution is 12,132,
and A=1, and B=2.

Name _____ Date _____ Time _____

Open Response UNIT 2

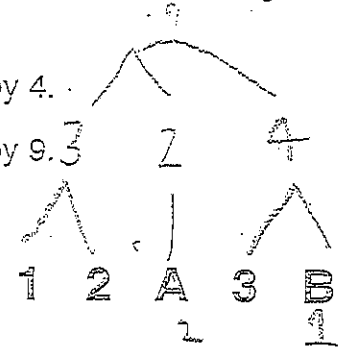
Progress Check 4

Missing Digits

2 nice

Find digits A and B in the number below so that the following conditions are true. Show all of your work.

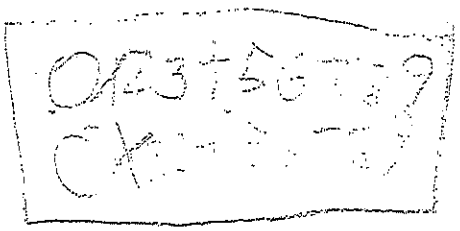
- The 5-digit number must be divisible by 4.
- The 5-digit number must be divisible by 9.
- Digit A cannot be the same as Digit B.



What is your solution? Explain how you used the divisibility rules to find your answer. Use sentences, number models, and visual models to show your thinking.

The answer is 12231, I know this because 12231 is divisible by Nine, is divisible by four, and I and B are not the same.

12,231 is divisible by 9, but not by 4.



Even Geniuses Work Hard

***Educational Leadership*, September 2010, Volume 68, pages 16-20**

Carol S. Dweck

Let's give students learning tasks that tell them, "You can be as smart as you want to be."

We can all agree that meaningful schoolwork promotes students' learning of academic content. But why stop there? I believe that meaningful work can also teach students to love challenges, to enjoy effort, to be resilient, and to value their own improvement. In other words, we can design and present learning tasks in a way that helps students develop a *growth mindset*, which leads to not just short-term achievement but also long-term success.

Why Foster a Growth Mindset?

During the past several decades, my colleagues and I have conducted research identifying two distinct ways in which individuals view intelligence and learning. Individuals with a *fixed mindset* believe that their intelligence is simply an inborn trait—they have a certain amount, and that's that. In contrast, individuals with a *growth mindset* believe that they can develop their intelligence over time (Blackwell, Trzesniewski, & Dweck, 2007; Dweck, 1999, 2007).

These two mindsets lead to different school behaviors. For one thing, when students view intelligence as fixed, they tend to value looking smart above all else. They may sacrifice important opportunities to learn—even those that are important to their future academic success—if those opportunities require them to risk performing poorly or admitting deficiencies. Students with a growth mindset, on the other hand, view challenging work as an opportunity to learn and grow. I have seen students with a growth mindset meet difficult problems, ones they could not solve yet, with great relish. Instead of thinking they were failing (as the students with a fixed mindset did), they said things like "I love a challenge," "Mistakes are our friends," and "I was *hoping* this would be informative!"

Students with a fixed mindset do not like effort. They believe that if you have ability, everything should come naturally. They tell us that when they have to work hard, they feel dumb. Students with a growth mindset, in contrast, value effort; they realize that even geniuses have to work hard to develop their abilities and make their contributions.

Finally, students with a fixed mindset tend not to handle setbacks well. Because they believe that setbacks call their intelligence into question, they become discouraged or defensive when they don't succeed right away. They may quickly withdraw their effort, blame others, lie about their scores, or consider cheating. Students with a growth mindset are more likely to respond to initial obstacles by remaining involved, trying new strategies, and using all the resources at their disposal for learning.

Creating a Culture of Risk Taking

Teachers who strive to design challenging, meaningful learning tasks may find that their students respond differently depending on the students' assumptions about intelligence. Students with a growth mindset may tackle such work with excitement, whereas students with a fixed mindset may feel threatened by learning tasks that require them to stretch or take risks.

To prepare students to benefit from meaningful work, therefore, teachers need to create a growth-mindset culture in the classroom. One way to create such a culture is by providing the right kinds of praise and encouragement. My research has shown that praising students for the process they have engaged in—the effort they applied, the strategies they used, the choices they made, the persistence they displayed, and so on—yields more long-term benefits than telling them they are "smart" when they succeed.

Teachers should also emphasize that fast learning is not always the deepest and best learning and that students who take longer sometimes understand things at a deeper level. Students can learn about many historical figures who were not regarded as "fast" learners in childhood. Albert Einstein swore that he was slow to learn and that's why he pondered the same questions year after year—with, as we know, excellent results.

Some teachers teach their students about the different mindsets directly. (To learn about a growth mindset curriculum that my colleagues and I have created, go to www.brainology.us.) Teachers may illustrate the concept of the growth mindset by having their students write about, and share with one another, something they used to be poor at and are now very good at.

In one class, for example, the students were astounded to learn that the school's baseball star used to be inept at baseball and only became proficient after much practice. Such discussions encourage students not to be ashamed to struggle with something before they are good at it.

Teachers can also ask their students to choose an area in which they would like to improve and then to establish a personal goal that would be a big reach for them. For example, a student who is typically afraid of criticism might decide to seek critical feedback on her next art project; an algebra student struggling to understand absolute values might commit to watching a YouTube video on how to solve linear absolute value equations, and then teach the process to his classmates; a student who lacks physical confidence might join

a sports team; or a shy student might approach other students she would like to befriend. Students can share their plans and even help one another enhance their skills and reach their goal.
Another strategy is to have students write a letter to a struggling student explaining the growth mindset, telling the struggler not to label himself or herself, and giving the student advice on improvement strategies to try.

Through such exercises, teachers are transmitting crucial information— telling students that they view them all as having intelligence that they can choose to develop. The teachers are also communicating that their role is not to judge who is smart and who is not, but to collaborate with students to make everyone smarter.

Building a Growth Mindset

Within a classroom culture that supports a growth mindset, teachers can design meaningful learning tasks and present them in a way that fosters students' resilience and long-term achievement.

Emphasize Challenge, Not "Success"

Meaningful learning tasks need to challenge every student in some way. It is crucial that no student be able to coast to success time after time; this experience can create the fixed-mindset belief that you are smart only if you can succeed without effort.

To prevent this, teachers can identify students who have easily mastered the material and design in-class assignments that include some problems or exercises that require these students to stretch. This way, the teacher will be close at hand to guide students if necessary and get them used to (and ultimately excited about) the challenging work. Some teachers have told me that after a while, students begin to select or create challenging tasks for themselves.

When presenting learning tasks to students, the teacher should portray challenges as fun and exciting, while portraying easy tasks as boring and less useful for the brain. When students initially struggle or make mistakes, the teacher should view this as an opportunity to teach students how to try different strategies if the first ones don't work—how to step back and think about what to try next, like a detective solving a mystery.

Suppose that a student has attempted a math problem but is now stuck. The teacher can say, "OK, let's solve this mystery!" and ask the student to show the strategies he or she has tried so far. As the student explains a strategy, the teacher can say, "That's an interesting strategy. Let's think about why it didn't work and whether it gives us some clues for a new path. What should we try next?"

When, perhaps with the teacher's guidance, the student finds a fruitful strategy, the teacher can say "Great! You tried different ways, you followed the clues, and you found a strategy that worked. You're just like Sherlock Holmes, the great detective. Are you ready to try another one?" In this way, the teacher can simultaneously gain insight into what the student does and does not understand and teach the student to struggle through knotty problems.

Give a Sense of Progress

Meaningful learning tasks give students a clear sense of progress leading to mastery. This means that students can see themselves doing tasks they couldn't do before and understanding concepts they couldn't understand before. Work that gives students a sense of improvement as a result of effort gives teachers an opportunity to praise students for their process. That is, teachers can point out that the students' efforts were what led to the progress and improvement over time.

Some teachers make students' progress explicit by giving pre-tests at the beginning of a unit that purposely cover material students do not know. When students compare their inevitably poor performance on these pre-tests with their improved performance on unit post-tests, they get used to the idea that, with application, they can become smarter.

Homework is an especially important component of an instructional program that enhances students' sense of learning and progress. Homework assignments should not feel like mindless, repetitive exercises; rather, they should present novel problems for students to solve, require them to apply what they've learned in new ways, or ask them to stretch to the next level.

For example, suppose that students are learning about the rise and fall of civilizations. Their homework assignment might be to apply their learning by designing a civilization that would either thrive (by building in positive factors) or implode (by building in risk factors). They can write the story of their civilization and what happened to it. Or suppose students were studying Shakespeare's sonnets. For homework, they could write a sonnet to the person or animal of their choice in the style of Shakespeare.

Grade for Growth

The way teachers evaluate their students' work can also help students develop a growth mindset. At one high school in Chicago, when students don't master a particular unit of study, they don't receive a failing grade—instead, they get a grade of *Not Yet*. Students are not ashamed of that grade because they know that they're expected to master the material, if not the first time, then the next time, or the next.

The word "yet" is valuable and should be used frequently in every classroom. Whenever students say they can't do something or are not good at something, the teacher should add, "yet." Whenever students say they don't like a certain subject, the teacher should say, "yet." This simple habit conveys the idea that ability and motivation are fluid.

Some teachers my colleagues and I work with tell us that they've shifted their grading system to consider more growth-mindset criteria, so that no student can coast to an *A* and students who struggle and improve get credit for their effort. One school bases one-fourth of each student's grade on growth-mindset factors, thus rewarding students who challenge themselves, are resilient in the face of difficulty, and show clear improvement over time. Other schools give a separate grade for challenge-seeking, effort, and resilience. Of course, for that grade to be effective (and not just a consolation prize), teachers need to have reinforced the value of these qualities daily throughout the school year.

What if a student puts in great effort but does not improve? The teacher needs to factor in the effort but then work with the student to figure out what the impasse was and how the student can break through that impasse.

Long-Term Success

Meaningful work not only promotes learning in the immediate situation, but also promotes a love of learning and resilience in the face of obstacles. This kind of meaningful work takes place in classrooms in which teachers praise the learning process rather than the students' ability, convey the joy of tackling challenging learning tasks, and highlight progress and effort. Students who are nurtured in such classrooms will have the values and tools that breed lifelong success.

References

Blackwell, L., Trzesniewski, K., & Dweck, C. S. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development, 78*(1), 246–263.

Dweck, C. S. (1999). *Self-theories: Their role in motivation, personality, and development.* Philadelphia: Psychology Press.

Dweck, C. S. (2007). The perils and promises of praise. *Educational Leadership, 65*(2), 34–39.

Ability Grouping in Elementary Schools

This article examines the notion of ability grouping. The author asks and answers these questions: Why use ability grouping? How does ability grouping affect student achievement? What should schools and teachers do about ability grouping?

Ability grouping of students is one of the oldest and most controversial issues in elementary and secondary schools. Hundreds of research studies have examined the effects of the two most common variants: between-class and within-class ability grouping. Between-class grouping refers to a school's practice of forming classrooms that contain students of similar ability. Within-class grouping refers to a teacher's practice of forming groups of students of similar ability within an individual class.

This digest summarizes the conclusions of Robert E. Slavin's 1986 comprehensive review of research on the different types of ability grouping in elementary schools. The purpose of his review was to identify grouping practices that promote student achievement.

WHY USE ABILITY GROUPING?

In theory, ability grouping increases student achievement by reducing the disparity in student ability levels, and this increases the likelihood that teachers can provide instruction that is neither too easy nor too hard for most students. The assumption is that ability grouping allows the teacher (1) to increase the pace and raise the level of instruction for high achievers, and (2) to provide more individual attention, repetition, and review for low achievers. The high achievers benefit from having to compete with one another, and the low achievers benefit from not having to compete with their more able peers.

One of the main arguments against ability grouping is that the practice creates classes or groups of low achievers who are deprived of the example and stimulation provided by high achievers. Labeling students according to ability and assigning them to low-achievement groups may also communicate self-fulfilling low expectations. Further, groups with low performance often receive a lower quality of instruction than other groups. Slavin sees as the most compelling argument against ability grouping its creation of academic elites, a practice which goes against democratic ideals.

HOW DOES GROUPING AFFECT STUDENT ACHIEVEMENT?

In his review, Slavin examines evidence on the achievement effects of five comprehensive ability grouping plans in elementary schools. His review draws conclusions about the effectiveness of the following grouping plans: ability grouped class assignment, regrouping for reading or mathematics, the Joplin Plan, nongraded plans, and within-class ability grouping.

Ability Grouped Class Assignment. This grouping plan places students in one self-contained class on the basis of ability or achievement. In some departmentalized upper elementary grades, the class may move as a whole from teacher to teacher. Evidence suggests that ability grouped class assignment does not enhance student achievement in the elementary school.

Regrouping for Reading and Mathematics. Under this plan, students are assigned to heterogeneous homeroom classes for most of the day, but are regrouped according to achievement level for one or more subjects. For example, all students from various homeroom classes of one grade level might be re-sorted into ability grouped classes for a period of reading instruction. Results indicate that regrouping for reading or mathematics can improve student achievement. However, the level and pace of instruction must be adapted to achievement level. Furthermore, students must not be regrouped for more than one or two subjects.

The Joplin Plan. This grouping plan assigns students to heterogeneous classes for most of the day but regroups them across grade levels for reading instruction. For example, a reading class at the fifth grade, first semester level might include high achieving fourth graders, average achieving fifth graders, and low achieving sixth graders. There is strong evidence that the Joplin Plan increases reading achievement.

Nongraded Plan. This plan includes a variety of related grouping plans that place students in flexible groups according to performance rather than age. Thus, grade-level designations are eliminated. The curriculum for each subject is divided into levels through which students progress at their own rates. Well-controlled studies conducted in regular schools generally support the use of comprehensive nongraded

plans.

Within-class Ability Grouping. This plan is generally used for reading or mathematics. Teachers assign students within their classroom to one of a small number of groups based on ability level. These groups work on different materials at rates unique to their needs and abilities. Too few studies have been conducted on the use of within-class ability grouping in reading to support or challenge its effectiveness. Part of the problem is that within-class grouping is so widespread in reading instruction that it is difficult to conduct research that includes a control group not using the practice. Research on within-class ability grouping in mathematics clearly supports the practice, especially when only two or three groups are formed. The positive effects are slightly greater for low-achieving students than for average or high achievers.

WHAT SHOULD SCHOOLS AND TEACHERS DO ABOUT ABILITY GROUPING?

Slavin concludes that schools and teachers should use the methods proved most effective, such as within-class ability grouping in mathematics, nongraded plans in reading, and the Joplin Plan. The review recommends that schools find alternatives to the use of ability grouped class assignment, such as assigning students to self-contained classes according to general ability or performance level.

Based on his examination of the features of successful and unsuccessful practices, Slavin recommends that the following elements be included in successful ability grouping plans:

--Students should identify primarily with a heterogeneous class. They should be regrouped by ability only when reducing heterogeneity is particularly important for learning, as is the case with math or reading instruction.

--Grouping plans should reduce student heterogeneity in the specific skill being taught, not in IQ or overall achievement level.

--Grouping plans should allow for frequent reassessment of student placement and for easy reassignment based on student progress.

--Teachers must vary the level and pace of instruction according to student levels of readiness and learning rates in regrouped classes.

--Only a small number of groups should be formed in within-class ability grouping. This will allow the teacher to provide adequate direct instruction for each group.

FOR MORE INFORMATION

Slavin, Robert E. ABILITY GROUPING AND STUDENT ACHIEVEMENT IN ELEMENTARY SCHOOLS: A BEST-EVIDENCE SYNTHESIS. Baltimore, MD: *Center for Research on Elementary and Middle Schools*, 1986.