# Dennis-Yarmouth Regional School District

Instructional Office Newsletter

## *Nine Ways Assessments Can Improve Teaching and Learning*

In this article in *Phi Delta Kappan*, Kim Marshall lists the reasons that tests have come under attack in recent years: the classroom time they take; the stress on students and parents; teachers' well-founded objections to test scores being used as part of their evaluations; and the fact that changing state curriculum standards mean high-stakes tests are a moving target. "Less testing, more teaching" is a battle cry among anti-testers in Marshall's home state of Massachusetts.

But criticism of tests is mainly aimed at high-stakes standardized exams, which aren't the most important; interim and on-the-spot assessments have a far greater impact on teaching and learning. Marshall's concern is that the testing-is-bad movement will distract educators from the power of lower-key assessments to address three troubling equity issues:

- Gaps between the intended, the taught, and the learned curriculum – for example, a high-school senior who's never learned about the Holocaust;
- Teachers who don't take responsibility for their students' learning – *I taught it, and if they didn't learn it, that's on them*;
- The Matthew Effect – the rich getting richer and the poor getting poorer because gaps in the curriculum and ineffective teaching have a disproportionate effect on students who walk into school with any kind of disadvantage.

"Why is assessment so important to meeting these challenges?" asks Marshall. "Because only when teachers and principals have accurate and timely information on what students have (and haven't) learned can they do the kind of minute-by-minute, day-by-day, month-by-month fine-tuning needed to reach all children."

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## MAY 2018

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### IMPORTANT DATES

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| **May 5** | **Yarmouth Town Meeting** |
| **May 8** | **Dennis Town Meeting** |
| **May 13** | **Mother's Day** |
| **May 15** | **Town Elections in Dennis and Yarmouth** |
| **May 28** | **Memorial Day No School** |

**Annual Town Meeting**


### IMPORTANT NOTICE:

**Central office** is a **FRAGRANCE-FREE ZONE-** so please be respectful and plan accordingly when you visit.

Due to one of our members at the CO being highly sensitive to **any** type of **FRAGRANCE**, we ask that staff visiting/meeting at the Administration building refrain from using any scented products. Fragrances from personal care products, PERFUME, AFTER-SHAVE, air fresheners, laundry and other cleaning products have been associated with adversely affecting a person's health. We ask that we all work together to make the environment a safe and healthy workplace for everyone.

**Thank you very much for your cooperation!**

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All assessments can be handled badly, but Marshall argues that, used well, assessments are the key to improving learning during each lesson, keeping educators and students focused on where they're going, and shifting instructional conversations to student results. Here's how:

## Assessments improve instruction during each lesson

1. **Fixing learning problems in real time** – On-the-spot checks for understanding have great potential (and a robust research track record) when they provide accurate information and teachers follow up. Students' facial expressions aren't a good gauge (too many "compliant pretenders"), and teachers asking, "Is everyone with me?" won't uncover embarrassed confusion, willful evasion, and daydreaming. But many teachers are now using a better repertoire of methods that truly reveal students' level of understanding:

- Every student jotting answers on small dry-erase boards and holding them up;
- Students answering well-framed questions via clickers, Plickers, and other high-tech and low-tech response systems;
- Students doing quick-writes with the teacher circulating and looking over their shoulders;
- Think-pair-share with all students discussing a question with an elbow partner and then reporting out;
- The teacher cold-calling students, using popsicle sticks or smartboard apps;
- Students responding to a lesson-closing question on an exit ticket.

Dylan Wiliam summed up the research on formative assessments with this alarming statement: "If students left the classroom before teachers have made adjustments to their teaching on the basis of what they have learned about the students' achievement, then they are already playing catch-up. If teachers do not make adjustments before students come back the next day, it is probably too late."

2. **Improving memory through the "retrieval effect"** – Have you ever forgotten where you parked your car in a large garage? That, like students' inability to remember the content of a textbook chapter they studied and highlighted the night before, is a retrieval failure. Recent research by cognitive scientists has revealed that strategically retrieving about-to-be-forgotten information – testing ourselves – is the best way to remember it. "Retrieving a fact is not like opening a computer file," says Henry Roediger III, one of the pioneers of this research. "It alters what we remember and changes how we subsequently organize that knowledge in our brain." This means the best way to study for a test is to read the textbook chapter, close the book, write down as much as we can remember, and then go back and re-study (and re-test) the parts we thought we had mastered but didn't. Retrieval practice works best when we're about to forget something; to commit important information to long-term memory, it needs to be repeated at widening intervals – a day later, a week later, a month later.


3. **Leveraging peer instruction** – Harvard physics professor Eric Mazur explains a concept to his 180-student classes, puts a multiple-choice clicker question on the screen, displays a graph of students' answers, and if 30-70 percent chose wrong answers, says, "Convince your neighbor." While students argue, Mazur walks around listening in on the dialogues. When he re-polls the question, correct answers shoot up – a sign that he's successfully enlisted the help of scores of peer instructors. After a brief clarification, Mazur continues with the class, using this teach-test-peer instruction-clarify cycle several more times. Engagement is high, student achievement has improved (especially in the conceptual realm), female students' achievement has improved significantly, and Mazur has become a much better professor. The key, he says, is orchestrating peer instruction.

**Assessments keep educators and students focused on where they're going**

4. **Fostering a growth mindset** – Classroom tests often trigger fixed-mindset thinking in students: *I aced it, so I'm a genius; I flunked, I'm just bad at math*. Carol Dweck and her colleagues have shown that students with a fixed mindset (negative *and* positive) tend to avoid challenges, give up easily, see effort as fruitless, ignore useful criticism, and feel threatened by the success of others. But if teachers (and parents) are sensitive to this cognitive trap and choose their words carefully, tests are an opportunity to foster a growth mindset. The key message: tests show how much you've learned, how hard you've worked, and the strategies you've used. Those are also the words adults should use to praise – or, if things haven't gone well, to give specific suggestions for improvement. When we succeed in getting students to shift to a growth mindset (sometimes one subject, sport, or activity at a time), they are more likely to embrace challenges, persist in the face of failure, see effort as the path to mastery, learn from setbacks and criticism, and find lessons and inspiration in the success of others.

5. **Generating helpful graphic displays** – "Tests produce detailed information on student learning," says Marshall, "and data displays can help students, teachers, and school leaders track progress, identify weak areas in the curriculum and test items, diagnose learning problems, set goals, and celebrate success… Well-constructed graphic displays can motivate students, inform teacher team discussions, and give administrators and instructional coaches key insights to support teachers' work."

6. **Growing students' ability to monitor their own learning** – An important long-term goal in every school is getting students to take increasing responsibility for their learning. "Working with assessment results," says Marshall, "helps students think like assessors, measure progress toward goals, zero in on weak areas, recognize a fixed and growth mindset, and understand retrieval practice."

**Assessments can shift the instructional conversation to student learning results**

7. **Providing substance for teacher collaboration** Data from common interim assessments and performance tasks are the ideal focus for same-grade/same-subject teacher team meetings. Key prerequisites are well-crafted assessments, enough time for substantive discussion, an adult culture of humility and trust (so one teacher can say to another, "Your kids did better on this item than mine. What did you do?"), and systematic follow-up with students who aren't yet successful. "The ideal dynamic," says Marshall, "is a balance of common curriculum goals and assessments, teacher autonomy and creativity around instructional methods, constant experimentation with new ideas in classrooms, and an ethos of seizing on the best ideas and spreading them to all teachers on the team."

8. **Helping school leaders supervise with an eye to learning** – The idea of using student test scores as part of teachers' evaluations is now largely discredited, but advocates of test-based accountability do have a point: student learning should be part of the conversation. "The trick for school leaders," says Marshall, "is to turn down the accountability pressure and join with teachers in looking at assessment results with a curious, problem-solving frame of mind." School leaders and instructional coaches have plenty of opportunities to do just that:

- Checking in with students during classroom visits (*What are you learning today?*);
- Chatting with teachers after classroom visits about intended and actual outcomes;
- Looking with teachers at on-the-spot assessments and exit tickets;
- Sitting with teacher teams as they plan assessments for upcoming curriculum units;
- work and test results;
- Getting reports from teacher teams on before-and-after evidence of learning through the year.

"The best leaders," says accountability advocate Douglas Reeves, "will use assessment results not as a hammer to embarrass teachers, but as a lever to prod even the best and most experienced to improve their practices."

9. **Ensuring that all students learn the right stuff** Marshall remembers the pedagogical freedom he had

teaching Boston sixth graders in the 1970s and concludes that laissez-faire curriculum policies have a major problem: "Disadvantaged students emerge with lots of gaps in knowledge and skills while advantaged students pick up what's not taught in school in their homes and communities." The best policy approach is:

- A well-thought-out K-12 curriculum (the *what*);
- Lots of room for creativity at the school and classroom level (the *how to*);
- High-quality tests that don't consume too much time;
- Stakes attached to test results so everyone takes them seriously, but with sufficient time and support to reach the standards;
- Prompt and helpful data on students' progress;
- Frequent, structured opportunities for teachers to share effective practices.


This approach creates a sense of urgency (but not panic) at the school level, getting people on the same content and skill page, while still allowing freedom to experiment with effective practices – always asking what's working and what isn't.

The bottom line, says Marshall: "The wise and effective use of assessments is essential to solving inequities within and among our schools… Let's use assessments so that all students have the skills, knowledge, and habits of mind to enter adulthood as well-educated, responsible citizens – who can sit down with any challenging test and say, 'I've got this.'"

**"In Praise of Assessment (Done Right)"** by Kim Marshall in *Phi Delta Kappan*, March 2018 (Vol. 99, #6, p. 54-59), http://bit.ly/2oPOsCX

## *Walking the Talk on Growth Mindset in Mathematics Classrooms*

"We live in a society that perpetuates the myth that math ability is an innate gift," says Kathy Liu Sun (Santa Clara University) in this article in *Teaching Children Mathematics*; "some people have it, and others don't." To counter fixed-mindset thinking, many educators make a point of using growth-mindset language – *You can grow your math brain* – and emphasize the importance of hard work, persistence, and learning from mistakes.


But these exhortations are not enough, says Sun: "Decades of research have shown that people's beliefs are shaped through social interaction; experiences shape beliefs and vice versa. When we tell children what to believe, we are placing the onus of having a growth mindset on them without carefully attending to how our instruction and classroom contexts might shape their beliefs."

For example, Sun has observed teachers who use growth-mindset language but unwittingly send fixed-mindset messages in some of these ways:

- When a student answers a question incorrectly, the teacher quickly moves on to another student (the message: we need to protect students from feeling embarrassed when they make a mistake);
- Some students are not given the opportunity to engage in rigorous math tasks (the message: only certain students can grow their math ability);
- Conceptually difficult tasks are given only to students who finish quickly (the message: speediness is a marker of math prowess);
- Several leading questions funnel students' thinking toward the solution (the message: students can't solve challenging problems independently).

How can this happen when the teacher has the best intentions? It's because we all have growth- and fixed-mindsets in our heads, says Sun, and specific classroom situations can trigger instructional actions that undermine our growth-mindset intentions. This happens most frequently when we assess student work, see student mistakes and struggles, and compare students to one another. "When these triggers arise," she says, "we should pause to reframe our response to better align with growth-mindset math instruction." Some general suggestions:

• ***Put more emphasis on sense-making and less on procedures.*** Focusing on procedures and spending a lot of time on drill and practice conveys a narrow definition of success: it's all about doing the procedure

correctly. Procedural accuracy is only a small part of mathematics, and rewarding it distorts the broader curriculum and limits the number of students who can excel – thereby conveying a fixed-mindset message. The alternative is posing questions, making students' thinking visible, unpacking ideas, making sense of problems, emphasizing conceptual understanding, allowing multiple ways to demonstrate mastery, and saying again and again that there is more to math than procedures and speed.

• ***Stop using deficit language.*** "We cannot consistently communicate the message that all students can improve," says Sun, "if we continue to label and categorize our math students as 'high versus low' or 'fast versus slow.'" The key is communicating the expectation "that all students can contribute to mathematics learning, not just those who have traditionally been successful." One strategy is *assigning competence* – making a point of recognizing the contribution a student made to a group that includes students at different achievement levels. "Assigning competence is more than praising behavior," Sun explains; "it clearly acknowledges how a student's contribution extends the mathematical thinking. The more we open our eyes to see what all students are capable of accomplishing mathematically, the more they will continue to impress us."

• ***Maintain rigor as students struggle and make mistakes.*** "We may talk about the importance of failure in our classes," says Sun, "but we can unconsciously counter this message by superficially dealing with a mathematical error by making the math 'easier' for students who are struggling." These actions are well-intentioned, but they water down the curriculum and don't support growth mindset. "Responding to struggle and failure in ways that genuinely support a growth mindset," she continues, "means that we give challenging work, persist alongside students when they make an error, and maintain the intellectual rigor of the task." When students falter, Sun encourages teachers to ask open-ended questions, press for conceptual understanding, unpack misconceptions, explore students' thinking, talk through errors in a nonjudgmental way, and emphasize the role of struggle in growing our mathematical brains. We should also seek out "low-floor, high-ceiling" tasks that maintain intellectual rigor while being accessible to all students. The website https://www.youcubed.org offers math problems along these lines.

***"Beyond Rhetoric: Authentically Supporting a Growth Mindset"*** by Kathy Liu Sun in *Teaching Children Mathematics*, March 2018 (Vol. 24, #5, p. 280-283), available to NCTM members or for purchase at http://bit.ly/2p7ZkMr; Sun can be reached at ksun@scu.edu.

## Pushing Back on Test Prep in Elementary Literacy Classrooms

**In** this article in *The Reading Teacher*, Dennis Davis and Nermin Vehabovic (North Carolina State University) acknowledge the pressure many teachers are under to spend a lot of classroom time on test preparation to boost their students' scores on high-stakes reading tests. "Resist!" say Davis and Vehabovic. "Test preparation is not the solution to raising students' test scores in reading, and it may have long-lasting negative effects on students' literacy lives… Further, research cautions that instruction centered on testing might be more likely to occur in schools that serve students of color and those affected by poverty than in schools in more affluent communities. This disparity in educational opportunity makes resisting test-centric practices an issue of social justice."

If administrative mandates make test prep absolutely unavoidable, the authors recommend spending no more than five percent of the year's literacy time on it (that's about eight hours total). "After that threshold is crossed," they say, "(and maybe before), students might learn unproductive messages about reading comprehension. This unproductive learning is hard to undo once it takes hold."

But Davis and Vehabovic aren't absolutists.

They agree that "testwiseness" is a useful skill – familiarity and confidence with how test items are worded and presented on the page, timing constraints, and "suspension of interpretive authority" (in other words, kids can't talk back to the test). "Test writers use language and formats that might not be familiar to all students," say the authors. "There might be some benefit in helping students feel comfortable with the language of the test so they can demonstrate their knowledge rather than struggling to break the code of the test's author." But Davis and Vehabovic believe it should be strictly time-limited and taught in separate units – the test genre – from regular literacy instruction.

The heart of Davis's and Vehabovic's article is devoted to sensitizing teachers and administrators to ways that test prep can creep into the literacy curriculum on cats' feet, conveying unintended messages to students and undermining good teaching and learning. They believe schools should **resist** these five practices:

• **Prioritizing tested standards** – This happens when

local curriculum guidelines require teachers to deemphasize untested standards or defer them until after accountability tests have been given. It also happens when students are told that a particular lesson or topic is especially important because it will be tested. These two practices suggest to students that the test is the goal of instruction. They might also infer that the messy, difficult-to-assess aspects of reading comprehension (critical thinking, online inquiry, social affiliation, knowledge building, and writing) are less important.

• **Using test-formatted passages** – This happens when teachers use passages and questions from test-prep workbooks or hand out photocopied excerpts of a book asking test-like questions with stems derived from previous tests. Students who get a lot of this kind of test prep might infer that it's not important for readers to choose their own texts, analyze and discuss authors and their motives, read longer texts over several days, or read multiple texts on the same topic for deeper meaning. "Instruction centered on test passages is especially detrimental for readers who have had difficulty with school literacy," say Davis and Vehabovic.

• **Strategies for annotating passages** – This happens when students follow a rote set of procedures with each passage: begin by writing the genre at the top, then circle the title and headings, then write a prediction, then write a main idea statement after each paragraph. A related practice is mini-lessons that focus more on completing written evidence of strategies rather than higher-level thinking, metacognition, and problem solving. "When annotation becomes a required way of showing understanding of a passage," say Davis and Vehabovic, "students might form misconceptions about how, why, and when readers use strategies (and make notes) while reading. Comprehension strategies lose their value when they are implemented at arbitrary stopping points in a text and serve mostly to prove that test answers have been traced back to specific sentences or paragraphs in a passage."


• **Item teaching** – For example, assigning examples of previous test items and discussing how to eliminate answer choices and hunt down and annotate evidence for the best answer. This can also involve incorporating test-like questions into read-alouds or small-group reading. "Item teaching is counterproductive because it does not help students learn from content that the items are supposed to measure, and may misrepresent or distort the intended content," say Davis and Vehabovic. "Time spent discussing how to answer a question is time removed from discussing the content of the text, responding and critiquing, or talking about how a text informs the readers' curiosities about the world around them." Students might very well conclude that comprehension is mostly about categorizing small chunks of text and agreeing with an authoritative interpretation of the author's message.

• **Over-interpreting item data** – This usually involves item-by-item analysis of students' performance on a benchmark test and zeroing in on specific areas (for

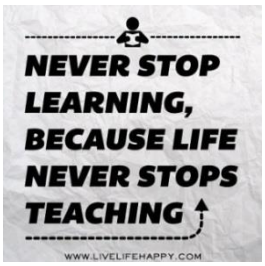
example, making inferences) for re-teaching. While this practice is well-intentioned and seems logical, Davis and Vehabovic advise teachers not to go down this rabbit hole. "There are many reasons a reader might

answer items incorrectly," they argue. "Maybe the question was an inference about a character with whom the student could not identify or empathize; maybe the text was so challenging for the student that her answers provide no valid information about her meaning-making at all; maybe the wording of that question was confusing. The conclusion that a reader needs help with a particular standard based on analysis of one or a few questions is usually unfounded. Most comprehension tests are not designed to provide fine-tuned diagnostic information about discrete components of comprehension. We urge teachers and school personnel to consider that most comprehension tests are useful for giving us information about one large standard (i.e., students can accurately answer questions about the texts and topics that were included on the assessment). They should not be used to draw conclusions about smaller subcomponents of reading comprehension."

The authors conclude with a helpful Venn diagram showing the intersection of lifelong literacy practices, classroom instruction, and accountability testing. Some conclusions:

- Where classroom instruction and accountability testing intersect, one segment is labeled "knowledge and skills important to classroom literacy that are not (or cannot be) prioritized on accountability tests." These include independent reading, self-selection of texts, and participation in vibrant discussions.


- The other segment is labeled "knowledge and skills students need for accountability testing that are part of classroom literacy instruction." This overlap is important, because effective literacy instruction is the best way to prepare for tests.
- Lifelong literacy practices intersect with classroom instruction and to a lesser degree with accountability testing, but there is a segment outside both of those: the deeper beliefs and habits of mind that we hope students will carry with them to future grades and literacy-rich lives.




- The very slim test prep segment is outside all three areas and includes test-specific skills – important but very limited – that are not part of the "real" literacy curriculum.


**"The Dangers of Test Preparation: What Students Learn (and Don't Learn) About Reading Comprehension from Test-Centric Literacy Instruction"** by Dennis Davis and Nermin Vehabovic in *The Reading Teacher*, March/April 2018 (Vol. 71, #5, p. 579-588), https://ila.onlinelibrary.wiley.com/doi/abs/10.1002/trtr.1641; the authors can be reached at ddavis6@ncsu.edu and nvehabo@ncsu.edu.

Sources: Images:
www.pixabay, April 27, 2018

- May flowers "Nature/Landscapes" by Stux "May 22, 2016"
- Bear/Heart: "Emotions" by Bru-nO "January 2018"
- Statue of Liberty "Memorial Day" by alexas-fotos "August-3-2015"
- "Smart Be Smart Clever Mindset Bulb": by Ramdion "April 17, 2015"
- "People/Student Questions": By geralt September26, 2014