Educative curricula and when a little PD is just not worth it

Christian Schunn
IFL co-director

Decades of research in mathematics, English, and science education have made it clear that students make substantial progress only when they experience rich learning tasks in their classes that require the students to engage in sense making; it is very difficult for teachers to arrange for strong student learning outcomes when the curriculum for students is weak. However, we are now learning that a good, cognitively demanding curriculum for students, while necessary, is far from sufficient. For example, in a recent analysis of the outcomes of 50 different sets of science curriculum materials, only the materials that included additional supports for teachers reliably produced good learning outcomes for students; the presence of extra supports for students mattered much less.

And we are also learning about why the common ways of rolling out curricula rarely obtain the student outcomes that are being sought. From these new insights, districts can become smarter about how they roll out new curricula.

Teachers are (and should be) in control of the curriculum details. Building a coherent experience for students across subjects and across years requires district-level thinking. Further, finding and creating good curriculum resources is rarely a simple matter, and so coordinating at the building or district level creates opportunities for a few experienced people to put together a stronger curriculum. However, every classroom is unique in terms of the rich set of knowledge, skills, interests, and challenges the students bring. And each teacher is unique in terms of areas of strength. That is, neither students nor teachers are cookie-cutter replicas. Student learning is not an assembly-line process like putting a standard wheel on a standard car. (Interestingly, it turns out that the traditional assembly line wasn’t great for high-quality yield car manufacturing either.)

So to obtain strong outcomes for students, each teacher must customize the curriculum resources provided by the building or district, aiming towards a shared vision of the goal for students, but adjusting for where the students and the teacher currently are. Further, for both conceptual understanding and motivational reasons, acknowledging and supporting professional agency in teachers builds their commitment and performance.

From curriculum fidelity to integrity. Unfortunately, not all customizations turn out to be good for students. Many research studies have documented the ways in which curricula that initially produced strong learning outcomes for students later suffered “lethal mutations” in which critical aspects were removed by teachers during the customization process. A critical bridge task or closing task might be skipped for lack of time; student sense-making activities (the most active learning ingredient) might be lost because too much scaffolding is given to students; a foundational hands-on learning experience might be removed because instructions on how to set up the hands-on activity were lost. Some of the most famous publications about growing student outcomes by leaps and bounds in real classrooms later turned into no-effect-at-all stories as things went to scale because of all these lethal mutations.

An initial reaction to such unfortunate outcomes as curriculum materials go to scale is to design for implementation “fidelity” or make the curriculum “teacher-proof.” Very detailed scripts for teaching are provided. Policy memos mandating strict adherence are circulated. Observers are sent out into the field to make sure each teacher implements the curriculum with fidelity, which is defined as following the script exactly. When framed in this fidelity-of-implementation way, the observed student outcomes can only be worse than what was initially designed. Most obviously, teachers will resist such changes...
How can network leaders design for a strong, productive network?

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Networks have always been a mechanism for improvement; as social learning theory reminds us that, when well organized, opportunities to learn together can be more powerful than individual learning. We know that bringing people together to work on a common goal can be exciting, but to enact real change we must push beyond a sharing network—a collection of educators who share their practice—to a scientific professional learning community—one in which a diverse set of individuals engage in disciplined inquiry to solve a common problem of practice (Russell et al., under review). In our work with networked improvement communities, we know full well the complexity of the challenges network leaders face as they design for this collective work. We offer a few tips to think about how to design and sustain strong, productive networks. These ideas are meant as a place to begin and not as an exhaustive list.

1. Spend time understanding the problem and the system that created the problem. Really.

   In education we are very quick to jump to solutions. In our rush to get to work, we often start to work on something that is not the true problem or does not reflect how the problem really is created and sustained.

2. Build a clear theory of improvement and make sure everyone in the network understands the theory.

   We often think we mean the same thing when we use the same words. Spend time making sure the common language is truly reflective of common understanding, and make sure that everyone in the network knows how the network intends to bring about the desired change. It is critical that everyone involved understands what the theory of improvement is and buys into that theory of improvement.

3. Build participation structures to support engagement and collaborative learning.

   Teachers are busy. While they might be highly motivated to engage in the work, they are unlikely to engage on their own. Usually network members are interested in seeking out other teachers and carving out extra time to collaborate, but it rarely happens unless it is formally designed into the work of the network, even if teachers already have strong a connection with each other. The structures matter for creating the opportunity, momentum, and accountability for meaningful work.

4. Build in true joint work to accelerate learning and understand variation.

   When teachers engage in true joint work (not simply individual work on the same topic), they can problem-solve on a deeper level and they can better understand the variation which is so critical to accelerating learning. Structures and routines can support or impede joint work. Network leaders can be intentional about what kind of joint work would support the theory of improvement and how to design for that.

5. Be strategic about how to tap practical knowledge.

   While there is no doubt that networks that tap into the practical wisdom of teachers are more productive, network leaders must be strategic about what teachers are good at (e.g., How does this measurement tool fit into your practice? How might you adjust your routine to fit this strategy?) and what is not a good use of time for teachers (e.g., building practical measures, inventing strategies when the field already has made progress on what best practice looks like). Most teachers are not trained to design measurement tools, but they can tell you if a tool designed by an expert in measurement is useful in practice.
PDSA cycles reveal hard truths about deep science instruction

Sarah Sterling Laldee  
Supervisor of science, Paterson Public Schools

Paterson Public School’s Guiding Coalition, a working group in academic services composed of content area senior staff, began its journey with improvement science in the fall of 2016. As we examined the various issues that we faced in curriculum and instruction, one flash point was the extraordinary low state achievement test scores in science on the Grade 8 and high school biology assessments. Our Grade 4 scores were almost on par with other students around the state, but with each successive assessment, we saw greater declines in proficiency rates.

Over the course of the fall, the Guiding Coalition gathered data to identify the root cause of our problem. We worked hard to avoid “solutionitis” as we examined what was happening not just at the middle and high school level, but also in elementary schools: What was the key to their success? We met with focus groups of teachers and administrators at each grade-level band and brought this feedback, along with assessment data, to our Guiding Coalition meetings. With thoughtful guidance from IFL’s Rosita Apodaca and Jennifer Zoltners Sherer, we used driver diagrams to uncover some hard truths: What looked like success at elementary school was, in fact, something else. Sixth grade teachers had been able to share data from their baseline assessments that showed students were arriving at middle school under-prepared to engage in meaningful science instruction, both in terms of content knowledge and inquiry skills. This directly conflicted with the state assessment scores and led to an interesting finding: Our state’s cut scores for the fourth grade assessment were so low that this created an inflated passing rate. Additionally, elementary teachers and principals lamented the limited time for science in the bell schedule, suggesting that it was not being taught as frequently as suggested by both the district and state. In order to verify this, we collected a sampling of class schedules from kindergarten through Grade 5. We found that only 36 percent of schools were meeting the recommended weekly minutes for science in these grades.

These findings helped narrow the focus of our problem of practice: How might we create more time for meaningful science instruction for kindergarten through fifth grade students so that they will have the necessary content knowledge and inquiry skills to be successful in secondary school and scientifically literate citizens? There were a variety of contributing factors that we identified in our driver diagram, including schedules, accountability, curriculum, teacher and administrator content knowledge, and instructional practices. We recognized that several of these contributing factors hinged upon the support and decisions of school administrators. In our first PDSA (Plan, Do, Study, Act) cycle, we sought to provide administrators with additional training during their Superintendent’s Institute regarding the interdisciplinary nature of elementary science instruction, with particular emphasis on how it supports literacy instruction and critical reasoning. Our expectation was that this training would help make the case for expanded science instructional time in school schedules during the following school year. Following the training, we pulled school schedules again for the same schools and found that 66 percent of schools now met the science instructional time recommendations, and all but one had increased instructional time by at least one class period.

While the Guiding Coalition has moved on to work on other problems of practice, the math and science department have continued to pursue additional PDSA cycles related to improving science instruction, with a particular emphasis on kindergarten through fifth grade. We are particularly interested in how integrated curriculum at kindergarten through second grade might better meet the needs of both students and teachers, while also eliminating artificial scheduled blocks for independent subjects. We look forward to sharing the results of this work and are thankful for the ongoing support of IFL.
New Brunswick realizes increases in ELA, math metrics through IFL work

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IFL fellow

Aubrey Johnson  
Superintendent of schools

Vanessa Pellington  
Director of assessments, planning and program evaluation

New Brunswick Public Schools (NJ) is a continuing partner with the Institute for Learning (IFL). Over the last 4 academic years, the district has seen definite growth across grades 3 – 10 in both English language arts and mathematics, as measured on the NJ state assessment tests.

In addition to the gains made at each of the grade levels, there were several instances in which the growth of the district significantly surpassed the growth at the state level.

To what can the increase in student achievement be attributed? Dr. Aubrey Johnson, superintendent of schools, states, “The growth we have experienced in New Brunswick is likely attributed to the system-ness and coherence we have developed across all departments and schools. We are committed to supporting all teachers with content-specific professional development as we develop a common practice across all classrooms grounded in the Principles of Learning, to support every learner.”

Until 4 years ago, the district was setting professional development goals by department/content area. Dr. Johnson asked the curriculum and instruction office to develop goals that were common to every teacher and administrator in the district. The focus of the goals was grounded in common practice. The district committed to increase student achievement by developing, implementing, and evaluating a common practice of:

- designing cognitively engaging, high-level, student-centered tasks that are measurable and aligned to the standards;
- purposefully differentiating questioning to assess and advance all students through the learning process; and
- advancing each student’s ability to construct logical arguments that require students to cite evidence.

The district committed to increase student achievement

The goals were applied to all levels of the district, administrators and teachers alike. Measurement of goal attainment was accomplished through dialogue. According to Dr. Johnson, “We moved away from rigid structures for benchmarks because that simply leads to a feeling of compliance.” Dr. Johnson envisioned an environment of trust in which teachers (and administrators) can try new ideas and new pedagogical moves. By benchmarking progress via conversations, the leadership team is able to discuss what they see and hear in classrooms: What evidence is there of use of high-level tasks? What questions are teachers asking and are the questions assessing and then advancing student thinking?

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Recently, the Institute for Learning was selected to bring its expertise and extensive experience with instructional coaching to mathematics educators in the state of Tennessee. More specifically, IFL provided instruction around coaching moves that support high-quality teaching, resulting in improved student learning. In a partnership with researchers from the Learning Research and Development Center, University of Pittsburgh, and the Tennessee State Department of Education via funding from the Institute of Education Sciences (IES), the IFL drew upon previous experience with coaching to extensively explore three key practices: (1) mathematical and pedagogical goal setting; (2) deep, specific conversations about the instructional triangle; and (3) evidence-based feedback.

From this work, our partnership studied a process to guide one-on-one cycles of coach-teacher discussions that incorporated the three key practices. We are excited to share three conclusions coming out of the work: Students of coaching model-affiliated teachers have slightly higher mean TN Ready scores; coaching model teachers reported and exhibited changes in teaching that are aligned with the model’s visions of rigorous mathematics instruction; and coaching model teachers’ engagement in more pre-conference planning meetings with coaches, observations, and post-observation conferences led to more opportunities for rich content discussions and planning time for rigorous instruction.

While involved in the study, coaches learned to engage teachers in discussions and reflection of mathematical and pedagogical goals. They ensured that the discussions were deep and specific by discussing content and the pedagogy that they would use to support student learning. During the process, the teacher and coach were both actively engaged in making sense of and discussing mathematical goals, pedagogy, and student thinking.

The graph below shows how, over time, the teachers in their discussions with the coach moved from naming broad topics to discussing students’ acquisition of the underlying math concepts.

On average, almost all of the teachers demonstrated substantial growth (effect size of .93) in their practice over the first 2 years of the work. The graph below represents the average estimate for growth in teaching during our first 2 years.

As can be seen by the figures, our partnership with Tennessee State Department of Education mathematics educators showed significant gains in moving teachers toward the model’s visions of rigorous mathematics instruction and led to more opportunities for rich content discussions. This instruction directly impacted students as demonstrated by their slightly higher mean TN Ready scores.
Math, a journey of understanding

Kathryn Cramer  
Elementary intervention teacher  
Deborah Gilbert  
Math instructional coach  
Tracy Hogarth-Mosier  
District elementary mathematics instructional coach  
Amaru Pareja  
Elementary intervention teacher  
Jackie Walts  
Middle school special education teacher

Syracuse City School District and the Institute for Learning (IFL) have been partners in education since 2014 with the goal of improving student learning. The approach to that goal has been two-fold — grow teacher conceptual content knowledge while refining instructional practices. In support of the district’s goals, our eclectic team of SOAR certified trainers focuses on the training and implementation of the IFL’s SOAR Mathematics survey tools and activities during tiered instruction (intervention). We work with teachers to explore learning progressions for mathematical concepts and analyze student responses to identify knowledge assets and areas of unfinished learning. During these endeavors, we have seen firsthand the role that having a deep conceptual understanding of the content plays in supporting student learning, especially for those students with significant areas of unfinished learning.

Teachers with a conceptual understanding of mathematics and pedagogical content knowledge have the ability to support student learning without taking over the thinking for them. With a blended understanding of content and pedagogy, teachers are able to leverage representations and students’ initial sense making to support their entry into more sophisticated thinking and reasoning about mathematics. Let’s see an example of how a teacher uses her understanding of multi- 
plying with one fractional factor and the importance of making connections between representations to support a group of fourth grade students. The students are solving the Eating Apples task, which involves one-third of an apple being eaten every day for 5 days.

The teacher circulates during the explore phase of the lesson while the students work collaboratively in small groups. Read the exchange that teacher has with one of the small groups of students who have arrived at an inaccurate solution.

**T:** What do you know about the Eating Apples task so far?

**S1:** Well, we know we can multiply.

**T:** Say more. What and why are you multiplying?

**S2:** Josiah likes thirds, so for 5 days we can multiply 5 times \(\frac{1}{3}\).

**S1:** We wrote 5 \(\times\) \(\frac{1}{3}\).

**S3:** There are 5 days and he eats \(\frac{1}{3}\) of an apple each day.

**T:** Okay, so how many apples has Josiah eaten after 5 days?

**S1:** \(\frac{5}{3}\) of an apple!

**T:** How did you figure out \(\frac{5}{3}\) of an apple?

**S3:** We multiplied 5 times 1 and then whatever we do to the top (all students chime in to chorus) we have to do to the bottom.

**T:** Work as a team to show the situation with a model. Be ready to talk about the model you create and how it shows the amount of apple Josiah eats over 5 days. I’ll be back.

The teacher recognizes that the students have overgeneralized and multiplied the numerator and denominator by 5. The teacher does not tell them that they made an error, but rather presses the students to create a model of the situation. By asking students to model the situation and be ready to talk about how their representations were related, she set up an opportunity for them to advance their thinking. The next transcript shows their exchange when she returns.

**T:** Tell me about the model you created.

**S2:** We drew a circle and colored \(\frac{1}{3}\) of it for each apple. We did that five times.

**S1:** Each circle is one day.

**S2:** No, each circle is one apple.

**T:** So is the circle an apple or a day?

**S2:** Each circle shows \(\frac{1}{3}\) of an apple that he ate each day. We needed five for the 5 days, to show the 5 \(\times\) \(\frac{1}{3}\).

**T:** Before, you said Josiah ate \(\frac{1}{3}\) of an apple in 5 days. Where do you see \(\frac{5}{3}\) in your model?

**S1:** Well, we changed our answer. We figured out he ate \(\frac{1}{3}\).

**S2:** \(\frac{5}{3}\) of an apple.

**T:** How did you determine that he ate \(\frac{5}{3}\) of an apple?

**S3:** We have thirds and we counted one, two, three, four, five thirds.

**T:** So how many apples is that? What does \(\frac{5}{3}\) mean?

**S3:** (No response)

**T:** (Points to students’ diagram) If we put all of these thirds together, what would we have? Talk about it and figure out another way to record \(\frac{5}{3}\).

The teacher asks the students about their model and then presses for clarification about the meaning of the factors and how the model represents their original solution. The students share that they discovered their original solution was not accurate and were able to provide reasoning for why they revised their solution.

The teacher’s instructional choices in this example were intentional. The teacher’s conceptual and pedagogical knowledge are the basis for the instructional decisions she made. She was able to orchestrate this learning opportunity, meeting students where they were in their understanding, because she asked questions to assess their thinking and then chose a path along which to advance their understanding.

In contrast, a teacher who has not yet developed a conceptual understanding of the mathematics or grown pedagogical practices that support conceptual development is likely to focus on automatized procedures and computational fluency, relying on standard algorithms and rote procedures. Imagine how different the learning experience would have been if the teacher had said, “The rule of what you do to the top, you do to the bottom does not work here. Multiply the whole number and the numerator.” Students who are taught to perform a series of steps may arrive at a correct answer but not understand why and how it is correct.

We often hear that it’s about the journey and not the destination. In mathematics, though the destination, the answer, matters, we believe that true learning of mathematics happens along the journey. Mathematics is more than processes for getting correct answers; therefore, mathematics instruction should include equal intensity around conceptual understanding, procedures with connection to mathematics, and the application of mathematics. Like in the example, the journey the students took, spurred on by the teacher’s questions that both assessed and advanced their thinking, ultimately supported a deeper understanding of...
The Institute for Learning 2019 Leaders Summit
Achieving the Promise of Instructional Equity Through Improvement Science

What does it take to deliver on the promise of equal access and responsive high-quality instruction to ensure every student is ready for the world? Collaborate with us and other school leaders to investigate this question at the Institute for Learning 2019 Leaders Summit.

The summit is designed for you and your team to learn about and use improvement science as a means for understanding the realities of your organization. Through the use of protocols and tools, you will examine your organizational assets and problems of practice in regards to equitable instructional opportunities. We will work together by taking an inquiry stance to understand the ways in which the relationship among educator content knowledge, pedagogical practices, and student thinking can serve as the fulcrum for tipping classrooms toward being more equitable and rigorous learning environments.

Save the date for the Institute for Learning 2019 Leaders Summit, June 4-6, 2019, in Pittsburgh, PA. Ryan Gallagher, a savvy science improvement leader at the Center for Research on Equity & Innovation at the High Tech High Graduate School of Education, will lead an interactive, dynamic session on Improvement Science in education. Check our website ifl.pitt.edu in the coming weeks for more details on the conference.

Supporting Ongoing Achievement Responsively
SOAR Mathematics | Chattanooga and Nashville

Are your students struggling to understand fractions? Are your middle school students struggling to make sense of ratios or proportional relationships? If you answered yes to any (or all) of these questions, then you should plan to attend a SOAR Workshop to learn about a set of tools to help move student understanding forward.

All sessions will be expertly facilitated by IFL mathematics fellow and celebrated author, Victoria Bill. Join us for this one-day workshop where you will

- identify a learning progression through which students travel when studying a domain;
- engage deeply with the required mathematics of a domain;
- work with the SOAR Survey and SOAR Checklist to analyze student understanding to identify what a student knows and area(s) of unfinished learning; and
- work with SOAR Activities and associated materials to determine a starting point for a student’s additional learning opportunities.

Chattanooga
- Number and Operations: Fractions (Grades 3 – 6)
  - Thursday, February 19, 2019
- Ratios and Proportional Relationships (Grades 6 and up)
  - Friday, February 20, 2019

Nashville
- Number and Operations: Fractions (Grades 3 – 6)
  - Thursday, February 21, 2019
- Ratios and Proportional Relationships (Grades 6 and up)
  - Friday, February 22, 2019

Reserve your space for this powerful learning experience and move your students toward greater achievement.

Happy holidays from the IFL

As we enter the holiday season, we are reminded to take time to reflect on the past year and think about what the new year may bring. You’ve worked hard all year in service to your students, making a difference in your learning communities. We appreciate and admire all you do throughout the year. We enjoy our partnership with you and want to support you to achieve your mission of providing high-quality educational opportunities for all of your students. We hope you will take some time during this season to enjoy the warmth and delight in family and friends.

From all of us at the Institute for Learning, we wish you a happy holiday season and joyous new year.
Encroachments on their professional agency, reverting to the old curriculum resources when the observers are not present. But more importantly, teachers are prevented from making the curriculum better for their students than it was initially designed if told they must use the curriculum “as is.” It is important to understand that the base materials and detailed teaching scripts tend to aim for the lowest common denominator, provide little room for building on unique strengths in a given classroom, and have no room in the plans for the basic chaos of real classrooms such as various kinds of lost teaching days.

A more productive framing than fidelity is “integrity.” A real ship maintains integrity when it is still able to function as intended after repairs—it holds water and it can still move in the desired direction. Similarly, a curriculum maintains integrity when teacher adaptations help students achieve the desired goals of each activity or unit. Changing an example to one that is more culturally relevant to the students of a class brings improvement to the student outcomes, as long as the new example is a good example of the key conceptual point the old example served. A curriculum functions to introduce new concepts from the discipline, allow students to test and refine their understandings and skills, and encourage students to develop positive attitudes about their relationship to the discipline. Each activity in the base curriculum should serve such functions, and teacher adaptations maintain integrity if they also serve the same function as that which was adapted.

Supporting teachers with educative curricula. If integrity, rather than fidelity, is the goal, how should teachers be supported? The common finding of lethal mutations means that, on average, teachers are not well positioned to meet the integrity goal as they customize. Here is where the extra supports for teachers in the curriculum play such a critical role, explaining why it was the presence of extra teacher supports, rather than the student supports, that best predicted positive student learning outcomes. A new wave of research on curricula design has shown that curricula that do well at scale are “educative” for the teachers. That is, they are designed to educate the teachers (rather than educate only the students) so that they can make productive adaptations.

A number of educative curriculum features have been identified. One common educative strategy is to turn teaching scripts into a “worked example.” Similar to an example shown to students in which a solution is worked out with explanations, a teaching worked example has annotations (aimed at the teacher) for the purposes of the student activities and the components of the teaching script. An annotation might explain what the initial demonstration is supposed to do for students or explain what a particular question given to the class might reveal about student understanding. Another common strategy is to show the relationship of particular activities within a large conceptual learning arc. What is assumed about what the students already understood from prior activities, what will be learned this time, and where will the next step go? A third common strategy is to identity ways customization might be done within particular parts of the curriculum given typically occurring classroom variation. For example, what extra resources or supports might be given to English learners reading a complex text? What websites might provide a range of examples that could also function in similar ways but allow for customization to student varying interests and prior learning?

Teachers need supportive professional development. Even with educative curriculum materials, some teacher professional development is still required. The curriculum materials for students that offer the strongest opportunities for new growth in students typically require large changes in teaching practices and knowledge for many if not most teachers. If very small changes would have been all that were required, teachers would have long ago made those small changes on their own. For teacher learning, similar as with student learning, the curriculum materials form a base, and then a learning community (with other teachers and/or a coach or teacher leader) plays a critical role in learning so that they can successfully enact new ways of teaching.

Too much simultaneous change means teachers don’t get enough support. The need for supportive teaching professional development to go alongside large curriculum change is obvious to most people in the educational system, but the most common outcome is that teachers receive woefully inadequate support. Why does this happen? The ironically constant feature of most districts is change itself. Every single year, many new initiatives are being rolled out at once across the system (e.g., new online systems, new socio-emotional learning methods, new evaluation methods, new assessments, and new curricula). Each initiative requires time from the relatively limited professional learning calendar of leadership and teachers. So then only a small number of hours can be devoted to any given initiative. The research literature says that approximately 20 hours is needed as a minimum, whereas teachers often experience only 4 to 8 hours at a one-day district-wide event.

A little PD is rarely better than nothing. What’s an administrator to do given the large gap between what is typically needed and what can be typically afforded? First, four observations and then some strategies. The first observation is that one of the reasons that there is so much change is because of the failures of what were actually good ideas that result from attempting too much change at once. If districts that engage in high levels of change slowed some of the changes down, more of the efforts would be successful and fewer changes would be needed down the road. The second observation is that sometimes a curriculum change with only a small amount of professional development is completely equivalent to a curriculum change with no professional development at all; the small amount of professional development typically does not translate into perceptions of quality learning experiences by teachers or improved outcomes for students. Third, sometimes a curriculum change with only a small amount of professional development leads to lower student outcomes than if the curriculum change had not occurred at all. Fourth and finally, the amount of professional development that teachers need to produce to obtain improved learning outcomes appears to be related to how large the curriculum change is for the teachers in terms of their existing knowledge and skills. For curriculum changes that are within their comfort zone, an educative curriculum and no PD...
appears to produce good learning outcomes; whereas for curricular changes that are far from their comfort zone, an educative curriculum and 24 hours of PD appear to be the minimum requirement for improved learning outcomes.

With these observations in mind, administrators can enact the following strategies:

1. Eliminate “exposure” PD events that consist of one day or less for new curriculum changes. Those appear to be a complete waste of teacher PD time when that event is the only PD planned for supporting that particular curriculum change that year.
2. Only engage in curriculum change if then new curriculum includes educative curriculum features.
3. Align supports for change in terms of integrity of implementation rather than fidelity of implementation.
4. Reduce the number of curricular changes in a given year to only those that can be supported with sufficient teacher professional development.
5. Focus teacher professional development time on those aspects of the curriculum that are most novel, rather than reviewing all the changes.

For more information on educative curriculum:


Educational Researcher, 46(6), 293-304.


What level of talk is present in the classrooms?

Professional development has been provided with a strategic design in mind. Dr. Vanessa Pellington currently serves as the director of assessment, planning, and program evaluation. Prior to serving in this position, Dr. Pellington served as the director of professional development. As such, she played a key role in coordinating the execution of the district goals over the last few years. “The decision to remain focused on our three core professional development goals has provided the resources and follow up required for our staff to deepen their understanding of the instructional practices that support all learners. IFL has certainly been instrumental in this process,” she states. Professional development offerings are tied directly to the goals and their implementation. Sessions with teachers or with administrators are always followed by learning labs and/or Bridges to Practice, where participants are asked to try the pedagogy in their buildings and bring evidence of their own learning back to the next session.

Implementing learning labs “changed the mindset of teachers and provided opportunities to adjust instructional practice,” according to Dr. Johnson. Teachers and administrators have had the opportunity to see planning for and modeling of high-level tasks that change student behavior and promote student agency. Teachers have engaged in the planning process and are better prepared to go back and execute moves in their own classrooms. Teachers understand how to pre-plan for possible student misconceptions and how they will handle supporting students as they work through those misconceptions. Professional development opportunities have been, by design, tied directly to New Brunswick classrooms. The district has built a community of trust and values mistakes as learning experiences, both in teaching and learning.

The district has continued with the professional development goals for several years because as they reflect on the goals in place, they continue to see where progress has been made but also where they still have room to grow before meeting the goals.

That said, now that the district has begun to see the impact of the work of teachers and administrators around the three goals toward common practice, they identified a need to add a fourth goal: to personalize student learning through the adoption and implementation of a whole-school approach to technology integration.

Technology was not originally a goal set by the district because they believed that technology must be infused into instruction and support learning, not be a separate entity. The district is focused on how digital learning can enhance students’ experiences in school and personalize learning. Dr. Johnson is committed to student voice and agency in the classroom, and instructional technology is one tool that can support all students in deeper learning.
UPCOMING EVENTS

Find us at national and local events. IFL fellows and researchers will deliver keynote presentations and lead educative professional development sessions at national conferences throughout the year. We hope to see you at one of these events.

English Language Arts

- 2018 Learning Forward Annual Conference, Dallas
  Allison Escher and Sara DeMartino, IFL English language arts fellows, will join Jacob Minsinger, West Allegheny Middle School English language arts teacher, to present Professional Learning Through Curriculum: Promise of Educative Curriculum at Learning Forward’s 2018 Annual Conference, December 4, 2018, at the Gaylord Texan Resort & Convention Center in Dallas, TX.

- Twenty-sixth International Conference on Learning, Belfast
  Allison Escher and Sara DeMartino, IFL English language arts fellows, will join Anthony Petrosky, IFL co-director, to present The Promise of Educative Curriculum at the Twenty-sixth International Conference on Learning, July 24 – 26, 2019, in Belfast, UK.

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Cross-Content and Leadership

- Learning Forward 2018 Annual Conference, Dallas
  Rosita Apodaca, IFL interim executive director, will join Sara DeMartino, IFL English language arts fellow, to present Building Comprehension Muscle for English Learners, at Learning Forward’s 2018 Annual Conference on December 5, 2018, at the Gaylord Texan Resort & Convention Center in Dallas, TX.

- 2019 Institute for Learning School Leaders Summit
  IFL directors and fellows invite you join us for this powerful leadership summit in Pittsburgh June 4 – 6, 2019 to learn about and use improvement science as a means for understanding the realities of your organization. Visit our website ifl.pitt.edu to learn more in the coming weeks.

Mathematics

- Supporting Ongoing Achievement Responsively (SOAR), Chattanooga, TN | Nashville, TN
  Victoria Bill, IFL math fellow, will be offering SOAR workshops to math educators in Chattanooga and Nashville, TN, February 19 – 22, 2019. Visit pl.tt/TN-SOAR to learn more about the workshops and how to register you or your team.

- National Council for Supervisors of Mathematics, San Diego, CA
  Victoria Bill and Laurie Speranzo, IFL math fellows, will present at the 2019 National Council for Supervisors of Mathematics Annual Conference, April 1 – 3, 2019, at the Marriott Marquis in San Diego, CA.

- National Council of Teachers of Mathematics, San Diego, CA
  Victoria Bill, Kristin Klingensmith, and Laurie Speranzo, IFL math fellows, will present at the 2019 National Council of Teachers of Mathematics Annual Meeting and Exposition, April 3 – 6, 2019, at the San Diego Convention Center in San Diego, CA.

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