Coaching is a powerful approach to increasing student learning, but only when certain conditions are met. Here we describe lessons learned from research about the essential “ingredients” and implementation of effective coaching programs.

Coaching focuses on a clear model of ambitious, dialogic instruction. Research shows that coaching programs are most effective when the instructional model and curricula content teachers are to be coached around are focused and well specified. Limited resources coupled with a desire to meet most teachers’ instructional needs in a school can result in coaches being expected to work with teachers in all areas of the curricula, and even across subject-matter content. Expecting that coaches will be true experts in all curricula domains at every grade level in a building is unrealistic. When coaches try to be everything to all teachers, no measurable improvement in student learning is often the result. Focusing coaching resources on achieving clear and specific goals (e.g., improving reading comprehension or writing instruction in specific grades, or developing an understanding of the relationship between addition and subtraction or multiplication and repeated addition) maximizes the chance that coaching will be successful.

Coaches have opportunities to grow their knowledge and skills. A critical feature of all successful coaching programs is that they engage coaches in intensive study of the instructional model and content teachers will be coached around. Minimal opportunities to develop the skills needed to work effectively with teachers is the most commonly given reason for why large-scale coaching reform initiatives fail to achieve their goals. Like teachers, coaches need sustained and intensive professional development to build their knowledge and skills. This training should include a focus on the theory underlying an instructional model for teaching subject-matter content, the pedagogical strategies for best teaching that content to students, and how to develop these understandings in other teachers. This learning is critical to coaches being able to lead professional learning groups; plan for instruction with teachers; model student-centered, dialogic practice in teachers’ classroom; and reflect with teachers on their practice.

Coaches and teachers have a shared knowledge base and language for talking about instruction. Successful coaching programs also provide opportunities for teachers to learn the content that will be the focus of coaching. Effective coaching programs provide this opportunity to teachers in various ways, including formal coursework, online or face-to-face workshops, and coach-led study groups to learn about an instructional model. The specific venue studying the instructional model does not seem to be important. What is important is that teachers and coaches have a shared knowledge base that serves as a

Lindsay Clare Matsumura
IFL co-director

Improvement science in action
Building a coaching model that works
Exciting new grant project

When does coaching improve student achievement?
Collaborative work is the key to gaining broad perspectives to complex problems

Humans are problem solvers by nature, and educators are no exception. Whether we are working to improve student comprehension, or striving to improve low math scores, once a problem has surfaced, we often rush to find solutions — to our detriment. Trying to fix a problem before we know its true cause is a problem in and of itself. Instead, we must take time to investigate from all angles. Our goal must be to understand the potential root cause of the problem, and doing so requires collaboration from all stakeholders, as each individual can see only a small portion of the accumulation of contributing factors.

This elephant depicted by the Carnegie Foundation shows the view we get when looking at something large and complex. The individual often has a skewed or narrow view because we see only a portion of the “elephant.” Up close we think we are looking at a rope, a snake, or even a wall. We need to step back to get a more holistic view of the elephant in order to understand what we are seeing. The same is true when we consider a problem of practice in a school system.

We suggest working collaboratively. Once a problem of practice is identified, focus collective efforts on gathering data from a variety of role groups and sources (e.g., state assessments, student/teacher surveys, coach observation) in order to gain a broad perspective of the work. This analysis of data helps to “pop” trending issues and identify the root of the problem and where to focus the effort first.

Gathering and analyzing various sources of data will provide stakeholders with different perspectives. To illustrate, we’d like to share one example of a problem of practice that we have been tackling in the Syracuse City School District: How do we improve low student performance in middle school mathematics? We began this collaborative work by considering what data we needed to offer us various perspectives of the problem. We considered these questions:

- Whose voices do you want in the room? Teachers’ voices? Students’ voices? Administrators’ voices?
- What survey questions will you ask of each of these role groups in order to gain insights into the problem?
- What research has been done in the area of the problem of practice?
- What can be learned from the state assessment data? Can something be gained by disaggregating the data and looking at the data of special populations?
- What expectations related to math instruction does the central office communicate to teachers?

We began by having teachers and administrators work in groups of four, each examining one of the data sources. Teachers reviewed the data and made observations, writing one observation per sticky note. Participants took turns sharing and posting observations. As similar ideas were shared from different sources, participants recognized the greater validity of this data when the same observation was shared across data sources. Once all of the observations were shared, we gave each category of data a descriptive name, and the strength of the observations was quantified. The charts on page 6 show two of the groups’ insights about data analyzed.
Content drives collective growth for educators and early learners

Kristin Klingensmith
IFL mathematics fellow

Nancy Aguado Holtje
Early childhood director
Paterson Public Schools

Lillian Lopez
Early childhood supervisor
Paterson Public Schools

Through collaboration between the Institute for Learning (IFL) and the Early Childhood Department at Paterson Public Schools (PPS), we were able to deepen and enrich the math learning opportunities of early learners. This joint project funded by the Henry and Marilyn Taub Foundation* spanned two years and positioned math content as the driver of discussions between the early childhood master teachers and their teaching peers.

The PPS early childhood master teachers, a select group of teacher-practitioners who have been recognized for their knowledge and experiences within the early childhood setting, function much like coaches. They routinely offer guidance and support to their teaching peers. It is within this role that we wanted them to collaborate with the teachers through coaching cycles that included discussions based on the instructional triangle (Ball, 1999). By doing so, master teachers supported their peers in making connections among math content, student thinking related to the content, and effective teaching practices. The master teachers also pressed for the teachers to identify what they would see and hear from students to know learning was occurring.

This excerpt from a pre-lesson discussion about sorting and categorizing shows the master teacher engaging a teacher in anticipating student responses.

MT: How might Arfan and Moniha respond when you ask them to sort the set of objects?

T: Arfan will just start giving suggestions. Moniha will start putting the objects into groups.

MT: Say more about what Moniha might do.

T: She will probably put all of the same objects together.

MT: What do you mean “same objects”?

T: All the yellow objects together, the reds together, and the blues too.

MT: So, in this case, “same objects” means same colored objects. She’ll sort by color. Do you think she’ll notice that the objects are different shapes?

T: She might see that they are different shapes, but I don’t think she’ll sort them that way.

Anticipating student responses is a necessary step in thinking through a lesson, because knowing where students are in their thinking and having an understanding of the learning progression for the concept help when planning for instruction.

This excerpt from the same discussion illustrates how the master teacher pressed the teacher to think about the questions to ask during the lesson.

MT: What about Arfan? You said that he would probably make suggestions first using words. If Moniha sorts the objects by color, what might you ask Arfan?

T: I could ask him how Moniha sorted. Or I can ask, “Tell me about what Moniha did?” Or, maybe, “Do you agree how Moniha sorted? Why or why not?”

MT: How might we get them beyond sorting by color? Sorting by color is an expectation, for sure, but we want to stretch their thinking sort by an attribute other than color; we want them to see that they can sort by shape and size too. What question could you ask them?

T: “How can we sort these objects a different way?”

MT: I wonder if they will recognize that they can re-sort or even sub-sort the groups using their shape. What do you think they’ll say?

Linking student thinking and the effective practice of asking purposeful questions to the content being explored supported the teacher in thinking about specific questions to ask while engaging students in the lesson to advance their understanding.

The teacher shared that the discussion she had with the master teacher helped her think through the questions to ask to advance student thinking during the lesson. She also shared that because of the discussion, she was able to engage a group of students playing with balls during academic choice to sort them by color and by size.

By keeping the collaboration between the master teachers and their teaching peers focused on math content and facilitating discussion around the instructional triangle, we collectively grew to be

- more agile and flexible during formal instruction, using purposeful questions and student contributions to advance learning along a development progression, and
- better equipped to leverage student engagement in academic choice areas by asking purposeful questions linked to the development progression to further explore the mathematical concept outside of formal instruction.

* The Henry and Marilyn Taub Foundation makes grants to pre-selected organizations working in early childhood, aging in place, and medical research.
**Content-Focused Coaching**

**Founder points to coaching milestones**

Dena Zook-Howell  
*IFL English language arts fellow*

Donna DiPrima Bickel is the co-founder of the Institute for Learning’s (IFL) Content-Focused Coaching® (CFC) literacy model, a senior fellow who has been with IFL since its inception, and a beloved colleague and mentor. She retired last month from the IFL leaving a lasting legacy and will be missed by all. What follows is a brief interview with Donna.

DZH: How did you first become interested in coaching as a means of professional learning?

Donna: I remember Deborah Ball wrote an article in 1999, “Developing Practice, Developing Practitioners,” in which she laid out a vision of how professional development needed to improve. Her vision included having a curriculum for teachers about pedagogy (a novel idea in 1999). Much of what teachers needed to learn had to happen in practice. Deborah talked about her vision in the context of mathematics... I began to see a way to apply these same ideas in ELA. Deborah Ball was both teaching in the elementary classroom and doing teacher training — she seemed like an incredible role model to me because she was living real, everyday problems in the classroom, not talking to teachers, but working jointly with them to solve problems.

This way of working seemed to lay out a trajectory for me — a way we could work in literacy. At the time, it (PD) was all make and take, and Deborah Ball was talking about the importance of knowing one’s content, and teachers working together around that content.

DZH: What do you see as some of the milestones in the development of CFC as a distinct coaching model?

Donna: Some of the distinctive features of CFC include its focus on content, the collaborative way coaches interact with teachers, and taking a system’s approach to creating the conditions for effective coaching. When we started CFC, the other model that was popular was Joyce and Showers’ Peer Coaching, which was very Rogerian in nature — with an emphasis on keeping the conversation friendly. But taking a cue from math, we realized that content knowledge and pedagogical knowledge were critically important. Working with Fritz Staub (visiting scholar from Switzerland and co-author of Content-Focused Coaching in Mathematics), we watched video of high-quality teaching. These conversations convinced me that coaches couldn’t be just a peer, but had to be a master of the content and pedagogy that they were coaching.

Another milestone regarding distinctive features of the CFC model was insisting that collaboration was essential, that coaching could not be a part of a formal evaluative process. Some districts were using coaches as an extension of the principal; we wanted to create a culture of continuous learning, not compliance. Yet we realized early on that for coaching to be deemed “effective,” we were going to have to demonstrate its impact in measurable ways. This meant focusing on important student outcomes and the pedagogy connected to this, and creating the conditions for effective coach-teacher interaction, including a supportive relationship with the coach.

As a part of creating this learning culture, Fritz encouraged us to think about how to take CFC to scale — and to standardize a curriculum around pedagogy to allow coaches to train teachers in the instructional content with the same materials they were using in their own professional learning.

Together, we felt that these distinct features (coaches with deep content and pedagogical content knowledge, a collaborative stance toward working with teachers, and providing coaches with strong PD modules around the content and pedagogy) would translate into and help demonstrate the impact of coaching. This was necessary to support the work of leadership who believed in coaching. We understood the kind of political and financial pressures they were under.

DZH: Can you share with us some of your gurus?

Donna: Some of the people who have most influenced my work include Lauren Resnick, whose focus on Effort Creates Ability and Socializing Intelligence was an early influence on my wanting to bring teachers together to watch video and discuss practice. All the modules we developed incorporated this analysis and professional discourse. Carol Dweck’s work greatly affected the way in which we positioned professional development in a positive and appealing light for educators. Engaging in professional development could be seen as a badge of honor rather than a deficit — it could become a symbol of intellectual curiosity and a demonstration of a growth mindset versus a fixed mindset.

Cynthia Coburn’s work on scale — depth, spread, ownership, and sustainability — helped me and the team, helped us shape the work of CFC in a system’s perspective, to work with leadership and develop policy around CFC. Her work centered on teacher sense-making — how teachers make sense of district and state policy. Mary Kay Stein’s work on the significance of boundary objects in reform efforts helped us to understand the importance of developing cognitive tools to socialize intelligence among teachers.

Being able to measure the impact of coaching became critical to the ability to continue funding for coaching. Lindsay Clare Matsumura’s work on the IQA (Instructional Quality Assessment), this research tool, made it possible for us to demonstrate whether coaches trained in our model made an impact on teacher practice and on student learning.

Finally, without Isabel Beck and Maddy McKeown’s work on the Questioning the Author approach, we wouldn’t have the powerful instructional model that undergirds much of the research that has been done regarding CFC.

DZH: What still intrigues you about coaching? What is on the horizon that makes you wonder, or perhaps excites you?

Donna: So I mentioned the use of video earlier, but early on we only thought to capture evidence of practice to use in group settings for study and analysis — to socialize intelligence about practice. What excites me now is the ability of teachers to use their own video for individual reflection. This is a real game changer! To use video for what you, personally, want to work and reflect on has proven (in our latest research on CFC with Lindsay Clare Matsumura, Dena Zook-Howell, and Rip Correnti) to be incredibly powerful. What I wonder about is how districts will find ways to incorporate using video in district coaching work to best access the power of this tool, and what new technologies will afford us in the future.
Building a coaching model that works

Laurie Speranzo
IFL mathematics fellow

Through a three-year Institute of Education Sciences (IES) grant with the TN Department of Education, the Institute for Learning (IFL) and researchers at the Learning Research and Development Center explored and studied coaching in mathematics. From this work, the partnership further defined a model of coaching mathematics from the original IFL coaching model. The model informs coaches’ practice as they hold a pre-lesson conference with the teacher, watch and possibly assist in the implementation of the lesson, and then provide feedback during the post-lesson conference. The insights gained from the IES work on mathematics coaching complements the existing framework of Content-Focused Coaching in mathematics.

Pamela Harris-Giles of Shelby County, TN, was a math coach who participated in the IES work and now serves as a district leader. She recently shared her thoughts on how coaching has impacted the work of her district.

Harris-Giles says, “The benefits of having math coaches to support our teachers, principals, and central office staff are substantial. While our math coaches focus on building pedagogical content knowledge of teachers, they also serve as instructional leaders who help communicate the vision for effective mathematics instruction in our district.”

To communicate this vision, the coaches make use of the three key coaching practices from our coaching model:

- Setting mathematical and pedagogical goals
- Holding deep and specific coach-teacher discussions around the math
- Providing evidence-based feedback to teachers

Two of these coaching practices are influential in building teachers’ pedagogical content knowledge. Setting pedagogical goals that support the mathematical learning goals helps focus teachers on their practice and the choices they make as facilitators of learning. By holding deep and specific conversations with teachers, coaches and teachers are able to continue to strengthen their own content knowledge and understanding of how students develop conceptual knowledge. By naming effective pedagogical practices and working on them with teachers, the Shelby coaches convey the vision of what mathematics education should be within the district.

Harris-Giles goes on to discuss why having the model for coaching in place is critical. She says, “It is imperative to have a well-defined, structured coaching model. Otherwise, you simply have a group of individuals who share the same titles, but not necessarily the same work. A structured coaching model grounds the work of our coaches and ensures that they are utilizing research-based strategies with intentionality and clearly defined expected outcomes.” To that end, she adds that coaching is most effective when teachers, administrators, and coaches work together, and coaching is used as a true support tool, not as an evaluative tool.

Though Harris-Giles says that implementing a well-defined coaching model with a clear role for coaches is a solid foundation, she also acknowledges that it is just the starting point. She recognizes that there is a need for continued support through both collaboration with other coaches and professional learning opportunities. She says that oftentimes “we focus on the growth and development of the teachers who are being supported by the coaches, and we forget that it is just as important to ensure coaches engage in ongoing professional learning to maintain and sharpen their skills.”

Stepping out from the context of Shelby County to think of the work of many of our partners, it is evident that coaches function differently across schools and across district. As part of our work and as research points out, defining roles and responsibilities of the coach position is essential. And the roles and responsibilities of the coach should be tied directly to the work of classroom teachers and student learning. By doing so, a coach’s time and effort can be dedicated to engaging teachers in the coaching cycle, rather than focusing on managerial tasks that do not directly support teaching and learning.

We also recognize that the position of coach can be lonely. A coach is more often than not the only person in a building fulfilling the role. Therefore, providing support, coaching network opportunities, and further professional development for coaches can optimize their work.

Pamela Harris-Giles, a former math coach, is the director of curriculum and instruction for Shelby County Schools in west Tennessee. Her passion is to ensure equity and success for children and to be an advocate for those who often feel they have no voice or choice.

*Content-Focused Coaching is a registered trademark of the University of Pittsburgh.*
The teachers and administrators recognized that observations identified from the data were contributing to students’ low performance in mathematics. They also recognized that some of the causes were out of their control, such as absenteeism. Teachers are now working to identify small tests of change that they will try out in classrooms with the hope of improving middle school mathematics. With the use of a continuous improvement process, though, educators will be able to systematically measure progress toward this goal.

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A similar situation (e.g., what they might say when students do not respond immediately to a question, or provide a “wrong” answer). Leadership is Critical to Effective Coaching.

Without a principal’s active and ongoing support, even the most skilled coaches struggle to engage teachers in the hard work of instructional improvement. Principal leadership then is a key determining factor in whether or not a coaching program is successful. Research shows that principals support their teachers’ engagement in coaching in five key ways:

- Treat the coach as a valued professional. Principals communicate their support of their coach by regularly letting him or her know that they value the coach’s work with teachers. Principals devote time to consult with the coach about his or her goals for teacher learning and how these will be met, and consult with the coach about important school-wide matters.

- Regularly endorse the coach as a source of content expertise. Some ways that principals signal to teachers that their coach is a content expert are by referring content-related questions to the coach, including the coach in school-wide leadership activities, letting teachers know that they are expected to work with the coach to advance their practice, and arranging for the coach to lead professional development sessions for the whole faculty.

- Participate with teachers. Principals can support a coaching program by attending coach-led team meetings with teachers, observing the coach model lessons in teachers’ lessons, and attending professional development with coaches to deepen their understanding of an instructional model promoted by a coach. All of this supports the coach and principal to work in partnership to plan for their teachers’ professional learning. When a principal commits his or her time to coaching, it sends a powerful signal to teachers that coaching is worth their time as well.

- Endorse ambitious, dialogic instruction throughout the year. In order to meet test-based accountability targets, principals can sometimes feel under pressure to encourage teachers to align their instruction to the content and format of the state standardized assessment. Coaching works best, however, when principals signal to teachers that ambitious, dialogic forms of instruction promoted by their coach are important to implement all year long. Principals can do this by explicitly letting teachers know that they should not teach to the test. This can take a “leap of faith” for some principals and teachers. Research shows, however, that high-quality teaching in a content area increases student learning and standardized test scores.

- Formalize a shared understanding of the coaching role. Research shows that there is often a lack of clarity in the roles and responsibilities of a coach in schools. In many schools, coaches spend most of their time performing administrative tasks such as coordinating assessments, as opposed to working with teachers. Coaching only works, however, when there is a clear job description and shared understanding that the large majority of a coach’s time needs to be spent working directly with teachers. This is critical to ensure that teachers receive the amount of coaching they need to significantly improve their instruction and student achievement.

In summary, principals need to show their faith in coaches, but that faith is misplaced if coaches are not expert practitioners. Coaches need opportunities to develop their professional knowledge and skills in the same way that teachers do. Moreover, coaches and principals need to be co-accountable to ensure that coaches are spending their time with teachers and are not being pulled in too many directions. Coaches cannot be all things to all people, but when they are skilled, are supported by their principal, and focus their time on teacher learning, coaching is a powerful strategy for improving student learning.
School improvement hub to improve writing instruction in Dallas

Mica Jochim
Editorial committee chair

The Institute for Learning (IFL) in partnership with the Center for Urban Education (CUE) and the Learning Research and Development Center at the University of Pittsburgh and Dallas Independent School District will serve as a hub for a network of 12 Dallas ISD secondary schools serving predominantly African American, Latino, and low-income students with funding from the Bill & Melinda Gates Foundation. In collaboration with Dallas ISD leadership, IFL and CUE will support teams of teachers and leadership from six high schools and six of their feeder middle schools to use continuous improvement methods to increase the number of African American, Latino, English learners, and low-income students who are on track for high school graduation at the end of 9th grade. The work funded by the $7.5 million grant will occur over 5 years and initially focus on English language arts and writing.

Research has shown that writing is a foundational skill that is critical to success in other courses and in college. A clear set of research-based writing strategies is now available for supporting struggling students to improve their writing. IFL and CUE will use our knowledge and resources and draw on the expertise of the school teams to address the network’s problem of practice in the context of their school and particular students. We have extensive experience in supporting and building capacity within schools to improve student outcomes.

Learn more about this exciting partnership on the IFL’s website and check out the following links to read national coverage on networks for school improvement.

http://k12education.gatesfoundation.org/what-we-do/networks-for-school-improvement/

New IFL interim director named

Mica Jochim
Editorial committee chair

Rosa E. (Rosita) Apodaca, a nationally recognized leader in education and an author with expertise in improving instructional systems focused on equitable outcomes for under-served students, has been named executive director (interim) of the Institute for Learning (IFL) at the Learning Research and Development Center at the University of Pittsburgh.

Apodaca held a variety of leadership roles in major urban school districts, including teacher, professional developer, and cabinet-level leader; she also worked as principal of a language school. Most recently Rosita served as a senior fellow and director of outreach and development at the IFL.

Rosita has worked to improve leadership effectiveness by collaborating with school districts to strengthen instructional leadership, develop high-quality teacher practice, and advance exceptional coaching practice. Rosita, who was born in Texas and educated in Mexico and the United States, is committed to strengthening the equity lens in the IFL work and supporting our partnerships through high-leverage and culturally appropriate practices. She thinks the IFL’s partnership with the University of Pittsburgh’s Center for Urban Education bolsters the strength of the IFL’s efforts.

Apodaca was appointed an IFL fellow at the University of Pittsburgh in 2002. Prior to joining the IFL, she served as a senior cabinet-level officer in large urban school districts and held teaching and other intermediary line and staff posts. She also led bilingual education/ESL programs for three major urban districts, served as an expert witness in federal court on the teaching and learning of English learners, and chaired the National Advisory and Coordinating Council on Bilingual Education.

With a background in consulting to international, national, and local education agencies, Rosita is frequently invited to speak at conferences on a variety of educational issues, including raising the achievement of English learners.

Rosita exemplifies the bold thinking and action needed to ensure that every child receives the best educational opportunities. Her combined deep expertise developed as a district leader and as an IFL senior fellow provides assurance that “Under her leadership the IFL will continue its important work in urban schools while growing its national and international presence,” said Anthony Petrosky, co-director of the IFL and former associate dean of the University of Pittsburgh School of Education. “Rosita brings sophisticated executive experience to our daily operations and our ongoing outreach to districts, national organizations, and international venues. We are fortunate and grateful for her acceptance of this position.”

Rosita received her BA from the College of Saint Joseph in Albuquerque, New Mexico; an MA from The University of Texas at El Paso; and she holds master’s and doctoral degrees in Educational Leadership from Teachers College, Columbia University.

Please join us in welcoming Rosita to this new role at the Institute for 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.

Mathematics

NCTM Regional Conference & Exposition, Hartford
Fred Dillon, IFL math fellow, will present at the 2018 NCTM Regional Conference & Exposition, October 4-6, at the Connecticut Convention Center in Hartford, CT.

Wisconsin Mathematics Council, Wisconsin Dells
Victoria Bill, IFL math fellow, will deliver the keynote address “Access & Equity, Going Deep with Mathematics Using Discussion as an Equity Strategy” at the 9th Annual WMC Mathematical Proficiency for Every Student (MPES) conference, October 17, at the Chula Vista Resort in Wisconsin Dells, WI.

NCTM Regional Conference & Exposition, Kansas City
Victoria Bill and Fred Dillon, IFL math fellows, will present at the 2018 NCTM Regional Conference & Exposition, November 3, at the Kansas City Convention Center in Kansas City, MO.

NCTM Regional Conference & Exposition, Seattle
Fred Dillon, IFL math fellow, will present at the 2018 NCTM Regional Conference & Exposition, November 28-30, at the Washington State Convention Center in Seattle, WA.

Supporting Ongoing Achievement Responsively (SOAR), Chattanooga, TN | Nashville, TN
IFL math fellows will be in Chattanooga and Nashville, TN, offering SOAR workshops to math educators, February 19-22. Visit our website 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, 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, at the San Diego Convention Center in San Diego, CA.

English Language Arts

2018 Learning Forward Annual Conference, Dallas
Allison Escher, Sara DeMartino, and Dena Zook-Howell, IFL English language arts fellows, will present at the 2018 Learning Forward Annual Conference, December 3-5, at the Gaylord Texan Resort and 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 Petrotsky, IFL co-director, to present "The Promise of Educative Curriculum" at the Twenty-sixth International Conference on Learning, July 24-26, in Belfast, UK.

Cross-Content and Leadership

2018 Learning Forward Annual Conference, Dallas
Rosita Apodaca, IFL interim executive director, will join Victoria Bill, math fellow, and Dena Zook-Howell, English language arts fellow, to present "Coaching, Planning, and Video Artifacts: Within a System" at the 2018 Learning Forward Annual Conference, December 1, at the Gaylord Texan Resort & Convention Center in Dallas, TX.

2018 Learning Forward Annual Conference, Dallas
Anthony Petrotsky, IFL co-director, will join Vivian Miha-lakis, Bill & Melinda Gates Foundation senior program officer, and Jacob Minsinger, West Allegheny Middle School English language arts teacher, to present "Professional Learning Through Curriculum: Promise of Educative Curriculum" at the 2018 Learning Forward Annual Conference, December 4, at the Gaylord Texan Resort and Convention Center in Dallas, TX.

Did you know IFL offers robust instructional materials in English language arts and mathematics? Explore shopifl.com today!

Contact Mica at ifl@pitt.edu with questions.