THE PEARSON SYSTEM OF COURSES:

A Coherent and Comprehensive Way to Advance Student Learning

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ALWAYS LEARNING

PEARSON

FOREWORD

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Chief Education Advisor

The drive for improved performance in the US education system continues to intensify. America's citizens, businesses, and educators know that success in the future, socially as well as economically, depends on more students achieving higher standards.

A quarter of a century of standards-based reform across the US has brought hard-won gains but, as NAEP and PISA show, these gains are largely incremental. In comparison to the best performing countries in the world, the US still lags and the achievement gaps within the system remain too wide to be acceptable.

The introduction of the Common Core State Standards across most of the states in the near future provides the best opportunity in a generation to change these stubborn statistics for the better. Those who produced the Common Core standards consciously benchmarked them against top performing countries such as Singapore, Japan, and Finland. They will significantly change expectations of students.

This in turn will mean that teachers will have to significantly change how they teach. Unless they do, the promise of the Common Core will not be realized. Teachers who for years have been teaching one way will have to learn how to teach another; for states and districts this presents a massive professional development challenge—and opportunity. If seized, the capacity of America's teaching force will be raised to new levels.

Then factor in this—the transformation of productivity in other sectors, from manufacturing to media, from pharma to retail, has been driven in large part by the application of technology. Yet the education sector so far in the US (as elsewhere) has proved frustratingly resistant to technological change. Yes, there are what Arne Duncan calls 'Islands of excellence' in this respect but so far not yet systems of excellence. This is because if technology is be transformative it needs to be combined with pedagogical and system change rather than seen as an entirely separate factor.

The Pearson System of Courses is designed to integrate each step in the argument laid out above. It provides excellent online materials for students explicitly designed to enable them to meet the Common Core standards. These materials are prepared by people steeped in the Common Core and deeply knowledgeable about global best practices.

It provides teacher materials to enable teachers to teach the students these standards both to whole classes and, in a personalized way, to each individual. These materials along with the accompanying professional development will enable teachers to master both the new content and the new skills necessary for them to succeed.

Finally the Pearson System of Courses makes use of technology to engage and motivate both students and teachers. The evidence from the pilots has reinforced our confidence that they will succeed in this respect. As their designers point out, the materials replace the textbook not the teacher. Unlike many failed technological interventions of the past, the technology here is a servant rather than a master.

We look forward to working with districts, teachers, and students across the country to enable the US to seize the once-in-a-generation opportunity that the introduction of the Common Core provides to take the performance of students to a whole new level. By staying closely in dialogue with those who use the Pearson System of Courses we are confident not only that they will they make a material difference but also that over time they can be continuously improved.

THE PEARSON SYSTEM OF COURSES

A Coherent and Comprehensive Way to Advance Student Learning

The broad adoption of the Common Core State Standards (CCSS) for ELA and Literacy in History/Social Studies, Science, and Technical Subjects and for Mathematics has been rightly recognized as a key turning point for American education. With the standards now agreed on by a majority of states, school districts and teachers across the United States need new learning materials and tools. These essential resources are needed to help their students master standards that require—as never before—that they know how to apply and express what they have learned. It is also necessary to engage students who believe that school is boring and irrelevant to the ways they live and learn outside of school.

Under the leadership of a group of experienced educators and researchers, Pearson has set out to meet this need: designing and developing a fully digital system of courses from the ground up to meet the goals of the CCSS in both ELA and mathematics. Deliberately designed to marry the promise of technology and the aims of the CCSS, the Pearson System of Courses (PSoC or courses) provides a completely new instructional system created to engage teachers and students alike in a coherent, unified and integrated learning experience that returns the excitement of learning to the classroom.

These course materials and tools are informed by a new way of looking at student achievement—one that approaches the student as an active and engaged learner. They are also built with coherence in mind, across both subjects and grade levels. By design, material taught in one grade builds upon the CCSS knowledge and skills acquired in the previous grade, while at the same time preparing students for the next. The courses also build upon internationally proven classroom routines so that students can develop the learning habits and practices that ensure both college readiness and international competitiveness. All of this is achieved with the thoughtful use of the latest mobile and digital technologies that are already revolutionizing the way students and teachers acquire and share knowledge.

The integration of pedagogy, technology, and change management, all called for in the implementation of the system of courses, is influenced by the work of Sir Michael Barber and Michael Fullan. In Alive in the Swamp, Fullan and Donnelly make clear that for a technology intervention to succeed in bringing transformation and improved outcomes, those responsible need to work simultaneously on three elements of the change: the technology itself, pedagogy, and system change. All too often technology interventions fail because only the first is considered.

The Pearson System of Courses consciously works on all three of these elements. Its designers understood from the outset that unless teachers changed their pedagogy significantly, the full benefit of the materials could not be reaped. The teacher materials and associated professional development are an integral part of the offer. Similarly the designers realized that the System of Courses would need to be part of an overall strategy for ensuring the success of the Common Core at district level and, because they are experts in system change as well as curriculum design, they have designed this thinking into the courses.

Theory of Action

The Pearson System of Courses has, at its core, the following beliefs—beliefs that together form the "Theory of Action" for the system:

- College and Career Readiness (CCR) is the right goal for all students.
- The educational ecosystem is an integrated, coherent system—one that thoughtfully brings together standards, curriculum, assessment, instruction, and professional development.
- Instruction and assessment are designed to continuously improve teaching, learning, and student achievement.
- The curriculum enhances teacher capacity by offering delivery- and content-supports as part of daily instruction; and by making readily accessible, on-demand professional development available to educators on an ongoing basis.
- The curriculum promotes positive student academic behaviors through a motivating and engaging digital classroom that is contextualized in the real world.
- Curriculum and instruction are directly tied to the Common Core State Standards by reflecting the learning progressions both within and between courses and grades.
- The digitized curriculum maximizes coherence, fosters student engagement, and promotes the measurement of deeper learning.

These beliefs form the foundation for this system of courses. Likewise, the courses have taken an intentional approach to developing a set of classroom instructional routines and rituals, based on internationally-benchmarked practices and research on new pedagogies for the digital age. These behaviors support students' efforts to take responsibility for their learning along the progressions defined by the standards. This instructional model comes directly from a philosophy of instruction tied to the foundations of effective learning.

Lessons Learned from International Benchmarking

Years of international benchmarking research on the highest performing school systems worldwide consistently show that to best support the mastery of rigorous standards—even in a world of digital tools and adaptive technologies—13 fundamental principles of learning, teaching, and curriculum form the foundation of effective learning. These principles have been used for 20 years in successful standards-based school improvement models. These principles, largely influenced by Dr. Peter Hill, fall within three broad categories (Learning, Teaching, and Curriculum) and form the basis for the Pearson System of Courses:

Principles of Learning

1. Effort produces achievement
2. Learning is about making connections
3. We learn with and through others
4. Learning takes time
5. Motivation matters

Principles of Teaching

6. The teacher matters
7. Focused teaching promotes accelerated learning
8. Clear expectations and continuous feedback activate learning
9. Good teaching builds on students' strengths and respects individuals' differences
10. Good teaching involves modeling what students should learn

Principles of Curriculum

11. The curriculum should focus on powerful knowledge
12. All students should experience a thinking curriculum
13. The best results come from having an aligned instructional system

Although each of these 13 principles has influenced the PSoC, four have had particular impact on the design of the classroom instructional model within the courses:

6: The teacher matters.

Study after study shows that a collection of programs and a collection of discrete apps will not produce results in student learning. Good teaching—where the teacher is the facilitator of a strong learning community and can practice his/her craft as a professional—is the surest way to motivate and push students to achieve.

3: We learn with and through others.

Creating a collaborative, learning community within and beyond the classroom is key. Students need to be able to discuss, justify, and explain their thinking. Students' use of devices is important, not just for content delivery, but for facilitating the interactions within this community.

5: Motivation matters.

Motivation has a direct and substantive impact on a student's readiness to learn. Students who see a connection between what they are being asked to learn and what they want for themselves (positive reinforcements for effort and achievement) make more progress than those who see no purpose in learning or who are fearful of failure with a given task.

12: All students should experience a thinking curriculum.

Challenging tasks that support deep thinking will stimulate intelligent behavior, as will explicit teaching of cognitive and metacognitive strategies. Higher-order thinking is particularly facilitated by an emphasis on extended problem-solving around fertile questions that are of intrinsic interest and relevance to students, that have no one correct answer, that are open-ended, that lead in many directions, and that tap into a number of disciplines or fields of knowledge.

The course developers have used these principles to create a digital environment and toolset that: support the collaborative learning community of the classroom, led by the teacher; emphasize high expectations based on rigorous tasks; drive engaged and motivating learning time, both individually and in pairs and groups; and create classroom structures for focused teaching, under the guidance of the teacher.

PEARSON SYSTEM OF COURSES

Design Principles

Although the Principles of Learning, Teaching, and Curriculum are extremely important, so too is it important to have a set of key design principles to support student mastery of standards within every classroom.

The following design principles have deliberately informed the design and development of the Pearson System of Courses.

What happens…	As a result…
Personalization and Differentiation Every student who walks through the door of a classroom is unique. Students bring distinctive prior knowledge, proficiencies and interests, which present teachers with major challenges. The system of courses is designed to be responsive to the needs of all students – from those who require additional support to those who need a challenge. The system of courses distinguishes between personalization and differentiation. Personalization is when students play an active role in selecting problems, books, projects and writing assignments. When students choose their own work, they feel more invested in their learning and have more motivation to complete their assignments. Differentiation is directed by the teacher to provide scaffolded support directly to students to ensure that they receive the assistance needed to move to grade level expectations, while developing in each student the responsibility for his or her own learning. In this way, technology is a real asset in engaging students and accelerating learning.	**Students:** Have many opportunities to choose problem sets, media forms, project topics and readings. Engage in rigorous learning tasks and activities that match their interests. Work on learning tasks that challenge them to grapple with new content but not be frustrated. Receive support when needed. Are encouraged to delve deeply into concepts to expand their understanding.

What happens…	As a result…
Modeling of Learning Both teachers and students engage in modeling of learning throughout all units. Modeling of thought processes and ways of thinking about tasks and/or reflections about the learning process are routinely offered by the teacher, but should also be done by students on a regular basis (e.g., Annotation for Comprehension in English language arts, "Ways of Thinking" in mathematics).	**Students:** Recognize and evaluate different ways of analyzing problems or approaching tasks. Develop meta-cognitive skills and strategies that can be applied to future learning. Emphasize learning mathematics and problem solving over simply getting to the right answer.
Clarity of Purpose The purpose of the work in every unit, in every lesson, is abundantly clear.	**Students:** Are able to tell you what they are working on without hesitation. Can explain what they are learning, why they are learning it, and their goals as learners.
Independent Work Independent work might involve students working individually and/or students working in collaborative groups. Tasks and activities within the program are designed to scaffold students' ability to work without continuing direction from or reference to the teacher. Additionally, these opportunities for independent work should push students to take responsibility for struggling or grappling with new concepts or skills.	**Students:** Actively engaged in meaningful work throughout the lesson—without continual reliance on the teacher for direction. Participate in cognitively demanding, hands-on learning tasks for which they assume responsibility. Access background knowledge independently and prior work to access new content.

What happens…	As a result…
Focused Teaching Every lesson, regardless of content or tier of instruction, should include focused teaching—teacher's prompts, cues, questions—targeted to specific student needs. This is teaching that is directed to one student or a small group of students and is shaped by the teacher's ongoing assessment of the students' needs.	**Students:** Produce work that demonstrates improvement over time toward meeting standards, using feedback from teachers and peers that is specific, constructive, and targeted to standards. Discuss their learning to enhance their own understanding.
Academic Discourse Students develop the ability to reason aloud clearly, with evidence-based arguments that express a logical point of view. Through academic discourse, students put forth knowledge that is accurate and relevant to the issue under discussion, and they constructively evaluate the use of evidence and the points of view expressed by others. Students use evidence in ways appropriate to the discipline (e.g., proofs in mathematics, data from investigations in science, textual details in literature, documentary sources in history), and they follow established norms of good reasoning.	**Students:** Engage in classroom talk that supports knowledge acquisition. Use accountable talk to justify their reasoning. Analyze and explain their own way of thinking. Analyze and understand the way of thinking of others. Critique the reasoning of others. Construct viable arguments.
Collaboration Students engage effectively in a range of collaborative discussions (partner, small group, and teacher-led) with diverse partners on relevant topics, texts, and issues, building on others' ideas and expressing their own clearly.	**Students:** Conjecture, and analyze the thinking of others. Demonstrate skills and strategies for working collaboratively. Develop a higher level of shared common knowledge and learning. Are members of a productive classroom community. Celebrate progress of the class as a whole.

What happens…	As a result…
Continual Formative Assessment Assessment of students' progress and needs happens continually throughout each lesson. While this sometimes is a formal checkpoint or end-of-unit assessment, on most days it will be less formal, conducted through conversation and observation. These assessments can be recorded in a form that subsequently allows the teacher to plan the next lesson or a subsequent unit of instruction, or when reviewing the progress of specific students and making instructional plans based on those reviews.	**Students:** Use digital notebooks and other tools that gather evidence of learning and growth over time. Revise their work based on teacher and peer feedback (written and oral). Confer with teachers and peers about their work. Use rubrics to guide, self-assess, and revise their work and work products.
Synthesis and Closure Direct instruction comes at the end of the lesson when students have been prepared for it. Closure within the classroom is teacher led, quotes student work, and consolidates the content being learned. Whether during the "Ways of Thinking" and "Summary of the Mathematics" in the math classroom or the formal "Closing" in ELA, it is how the purpose of the lesson is revisited in light of what has transpired during the lesson. It is about synthesizing and summarizing the learning while helping learners store it in a digestible and retrievable form in their memories, so that they can build on it further in the future.	**Students:** Revise their work to meet specific standards. Use high-level cognitive skills to solve problems, synthesize information, and justify their reasoning. Upgrade their ways of thinking to incorporate thinking with grade-level content. Incorporate speaking and listening skills as a natural outgrowth of lessons.

These design principles are instantiated in the instructional routines and rituals of the classroom. These routines and rituals serve as a core part of the lesson structure. Students and teachers use the routines over and over until they become habits—thereby minimizing the time spent on classroom management and maximizing the time spent on learning.

A Rigorous, Comprehensive, and Aligned Curriculum Built from the Ground Up

The designers and developers of the Pearson System of Courses employed the principles of learning and design principles listed above as the foundation for the development of the English Language Arts and Mathematics System of Courses.

English Language Arts

In English language arts, there are 13 complete year-long courses, which comprise 145 lessons for each of grades K, 1, and 2 and 150 lessons for each of grades three through twelve, organized into units, plus assessments. This allows teachers to add their favorite unit or take more time to address the needs of their students.

All the Pearson System of Courses in ELA are designed to support the development of students' abilities as critical readers, effective writers, and speakers, and to increase their knowledge of literature and narrative, informational, and argument genres. The courses provides multiple opportunities for students to develop these skills outlined in the Common Core State Standards in ELA for reading, writing, speaking, and listening and language. A pattern of whole-class instruction, small-group collaboration and teamwork, formative assessment, independent work, research and reflection is carried out through the year.

The goal of the ELA course is to build in each student by the start of secondary school the stamina and strategies for reading independently and deeply; capacities to be applied across the range, quality and complexity of texts identified within the CCSS for ELA. These texts include stories, poetry, and literary nonfiction.

To meet this aim, the Pearson System of Courses in ELA provides ample time for students to take part in independent reading of texts of their choice while at the same time helping them to develop a repertoire of strategies for understanding both rich and complex literature and the informational texts required for college and career readiness.

The focus of instruction in reading is on close reading of grade-level texts. This method requires that students over the course of several encounters with a text read first for a literal understanding of the text and then over several further encounters read more deeply so as to develop a conceptual understanding, to appreciate elements of craft, and finally to see the relationship between the ideas, themes, and stylistic features of that text in relation to those elements in other documents. Through this process, students develop a repertoire of strategies for reading and understanding increasingly complex texts and they learn to identify markers of form and genre and use this information to interpret other texts that they read and to improve the texts that they write.

The focus of instruction in writing is on shaping writing for audience and purpose and on using knowledge of genres and techniques of craft, with a particular focus on literary narrative, explanatory text and formal argumentation. Students practice the habits of writers, collecting ideas, taking notes during reading and discussions, and annotating texts for further reference. Students also write to learn. They take notes, engage in reflective writing, summarize ideas, and record their thoughts and impressions. They then share these notes with others as rehearsals for whole-group conversations and as components of group projects.

The focus of instruction in speaking and listening is on participating effectively in discussions (one-on-one, in groups, and teacher-led) with diverse partners about substantive topics and on presenting information effectively. Students make strategic use of digital media in presentations, and learn to adapt their speech to a variety of contexts and tasks.

The focus of instruction in language is on vocabulary, sentence construction/ deconstruction, and punctuation. Content-specific vocabulary related to the unit topics is introduced early in each unit and revisited as the unit progresses. Development of vocabulary is further supported via various interactive tools, including a vocabulary game. Similarly, attention to language is embedded throughout the units, as students receive feedback on their writing and speaking from their teachers and peers, analyze the language of the texts that they read, and engage in sentence-combining activities.

Each ELA course is comprised of introductory units, literary and informational units, assessment units, and project units.

Mathematics

In mathematics, there are 15 complete year-long courses, including six for high school. High schools can choose either a traditional or an integrated approach, as defined by the CCSS. The courses comprise 150 lessons for each of grades K through 11. This allows students to spend more time on specific concepts or allows teachers to include their favorite topics or lessons.

Built from a comprehensive review and analysis of international mathematics curricula, these courses directly align these global best-practices to address the CCSS. The result is a curriculum that focuses the precious time and effort of teachers and students on just the important mathematics needed to progress from kindergarten to college-ready. Through this curricular focus and the efficient and engaging use of technology, the courses personalize the learning and build depth and rigor in the students' understanding and proficiency of the mathematics.

The components of the courses are: units of lessons, interactive resources, dashboards for students, teachers and parents, projects, and more. The units have an architecture that calls for lessons of different types for different purposes. The lessons are built from a set of basic building blocks that include Routines and Sub-routines that teachers and students quickly find familiar. The lessons also incorporate the use of a variety of tools, digital media resources, social networking tools, projects, and tools for management of student work.

In the mathematics classroom, the units are designed to:

- Embed teaching strategies that make mathematical relationships explicit in an intentional and public way.
- Build student proficiency with adaptive reasoning and procedural fluency.
- Teach through problem-solving as a means of helping students make sense of mathematics.
- Provide students with instruction and experiences that allow them to demonstrate deep, conceptual understanding of important mathematical content that connects within and between the Common Core standards for mathematical content.
- Create a supportive environment that fosters collaboration, questioning, and investigation and that allows students to routinely demonstrate the eight Common Core standards for mathematical practice.
- Deepen differentiation strategies and acquisition of academic language in the teaching and learning of mathematics.
- Scaffold instruction to support all learners; differentiation considerations for students with special needs, English language learners, as well as reluctant readers.
- Analyze student work as a way to build teacher reflection on instructional practice.

Mathematics courses offer three main types of units:

- Concept Units focus on the development of concepts. This type of unit comprises about 85% of total student work.
- Modeling Units give students opportunities to integrate and apply the concepts and skills they have learned as they solve and model an array of problems.
- Project Units give students four-to-five days to work on a project of their choice, or to continue a project already started within a concept unit.

Assessments

Assessments within the Pearson System of Courses provide three distinct measures of student progress towards college and career readiness: Growth, Mastery, and Diagnostic measures.

Growth assessments measure student progress year over year. In the Pearson System of Courses, growth measures are presented to students annually in a model that calls for a pretest at the beginning of a school year, followed by a post-test at the end of the school year. Growth measures use a blueprint that follows the proportions specified in the content frameworks of both consortia (SBAC and PARCC).

Measures of Mastery allow students to demonstrate how well they have mastered all relevant Common Core State Standards for a given grade level. These most often take the form of end-of-unit assessments (mathematics) or unit accomplishments (English language arts performance tasks).

Diagnostic assessments are presented to students in the form of pretests, quizzes, exercises, lesson tasks, and self-checks and appear continually throughout the units and lessons so that teachers can determine student strengths and weaknesses and modify their instruction accordingly.

Collectively, these three types of assessment provide a comprehensive picture of student progress and can be used to monitor that progress dynamically over time.

A Powerful Application of Technology

The Pearson System of Courses makes use of technology to help teachers establish a motivating and engaging digital classroom focused both on the sharing and learning of rigorous content and on the promotion of the essential academic behaviors students most need to succeed. These key student academic behaviors include the ability to work independently (without constant direction from the teacher); to take responsibility for learning; to persevere in mastering new concepts and ideas; and to consistently revise work to a higher standard of performance.

The Pearson System of Courses helps students acquire these behaviors by:

- Promoting dynamic collaboration and interaction among student groups and student pairs within a larger classroom "learning community."
- Providing digital tools that make it easy for students to share work and to provide feedback among small working groups, partners, collaborative teams, and among members of the whole class.
- Requiring academic discourse in both ELA and mathematics in support of the Common Core State Standards speaking and listening anchor standards by consistently creating opportunities for students to improve their presenting, reasoning, and justifying skills.
- Leveraging a course structure that requires increasing student responsibility and independence in tackling and completing rigorous tasks within and across units.

Importantly, this focus is deliberately embedded within and across the learning materials within the courses.

In fact, as part of becoming college and career-ready in a structured, rigorous, and integrated environment, students will routinely:

- Use technology for reading, writing, solving problems and communicating with teachers and each other.
- Analyze text and video of particular events or themes as part of writing formal argumentation.
- Analyze the purpose of information presented in diverse media and formats and evaluate motives behind its presentation.
- Integrate multimedia and visual displays into shorter presentations to clarify information, strengthen claims and evidence, and add interest.
- Create multimedia presentations and short and longer videos ("movies") as work products.

As a consequence, while students create multimedia works, share their achievements and opinions through social networks, and play engaging games, they are at the same time learning Common Core State Standards content and behaviors.

Students also develop academic behaviors and 21st century skills by taking part—together with other students—in a variety of project-based learning activities designed expressly to meet the needs of the Common Core State Standards. Project-based learning puts students at the center of their own learning as they progress from planning, to execution, to final project creation. This hands-on, student-centered approach to problem-solving and critical thinking encourages students to pursue their own interests, and at the same time, helps them acquire essential skills that emphasize creativity, collaborative problem-solving, and the utilization of digital media to help complete challenging tasks.

The Pearson System of Courses has included project-based learning in both English language arts and mathematics. The approach to projects utilizes the best practices and learning principles established by the Partnership for 21st Century Skills. These relevant, rigorous project-based activities help guide students to develop the motivation, knowledge and skills they need to succeed. They support content knowledge, planning, and persevering through a long-term process and help students recognize, develop, and apply the planning, team-work, communication, and presentation skills they will make use of while presenting a final product. These abilities will help pave the way for career and college readiness and success in their future work.

For teachers, the Pearson System of Courses similarly makes use of technology to help develop key skills. The courses embed in-line teaching supports directly within the teacher's version of student materials. Teachers can access these supports each time they encounter one of the repeated classroom instructional routines that serve as "building blocks" for student achievement, and can add their own notes and comments to the supports provided as needed.

Core Applications

Most important among the student tools are the core applications that make it possible for teachers and students to take part in key classroom-based rituals and routines. These applications—particularly the Student Notebook and the Annotation Tool—enable students to work alone or in groups and to share their work with each other and with their teachers in ways that are deliberately called for by the Pearson System of Courses. These student tools are always available to students, and throughout the course of the school year many of the most important classroom behaviors students need to develop and master will be instantiated within this core set of these digital tools.

Personalization and Differentiation for Students

In the PSoC, the technology replaces the textbook, not the teacher. The result is a new model for integrating technology and teacher-driven instruction, one that aims to encourage students to make choices of texts and problems (personalization), and explore their own and others' ways of thinking and enables the teacher to focus on individual students who need support (differentiation).

The Pearson System of Courses makes this possible by:

- Using technology to make learning a collaborative and social process.
- Using the technology to help the teacher identify students who need additional support and providing time in the unit design for that individualized instruction.
- Providing students who are well prepared and ambitious with appropriate choices of pathways and tools.
- Offering extensive opportunities for student choice of how and what they present and solve.
- Providing scaffolded support to ensure that all students receive the help they need while developing responsibility for their learning.
- Providing increasing levels of scaffolding for grade-level problems—rather than assuming that a student who gets problems wrong needs remedial work at lower grade levels.

Unfinished learning from earlier grades can often be finished within grade-level work when the scaffolding is just in time, helping to avoid the trap of falling into below-grade-level remediation. Nonetheless, some students will need sustained, direct help on below-grade-level content. Using assets of the Pearson system, this help can be delivered through a blend of teacher-directed, Guided Reading and Writing groups, Guided Math groups, and peer tutoring.

Differentiated Instructional Pathways

Using the Pearson System of Courses, teachers can easily give support to students identified as needing differentiated instruction. Teachers may offer:

- Intervention through reading groups or guided mathematics groups, in which students meet with the teacher in small, focused groups that target particular areas of weakness.
- Engagement via the vocabulary proficiency game system, in which students can work at their own level to master skills that are integral to the unit, and prerequisites to subsequent units.
- Scaffolded instruction throughout the lessons, by means of explicit and targeted teacher notes.

In ELA, each unit incorporates opportunities for personalized and differentiated student instruction. Every lesson, regardless of content or tier of instruction, includes focused teaching, teaching that is directed to one student or a small group of students and is shaped by ongoing assessment of the students' needs. The daily structure always leaves time for focused teaching—it is not something extra that takes away from the regular structure of the lesson.

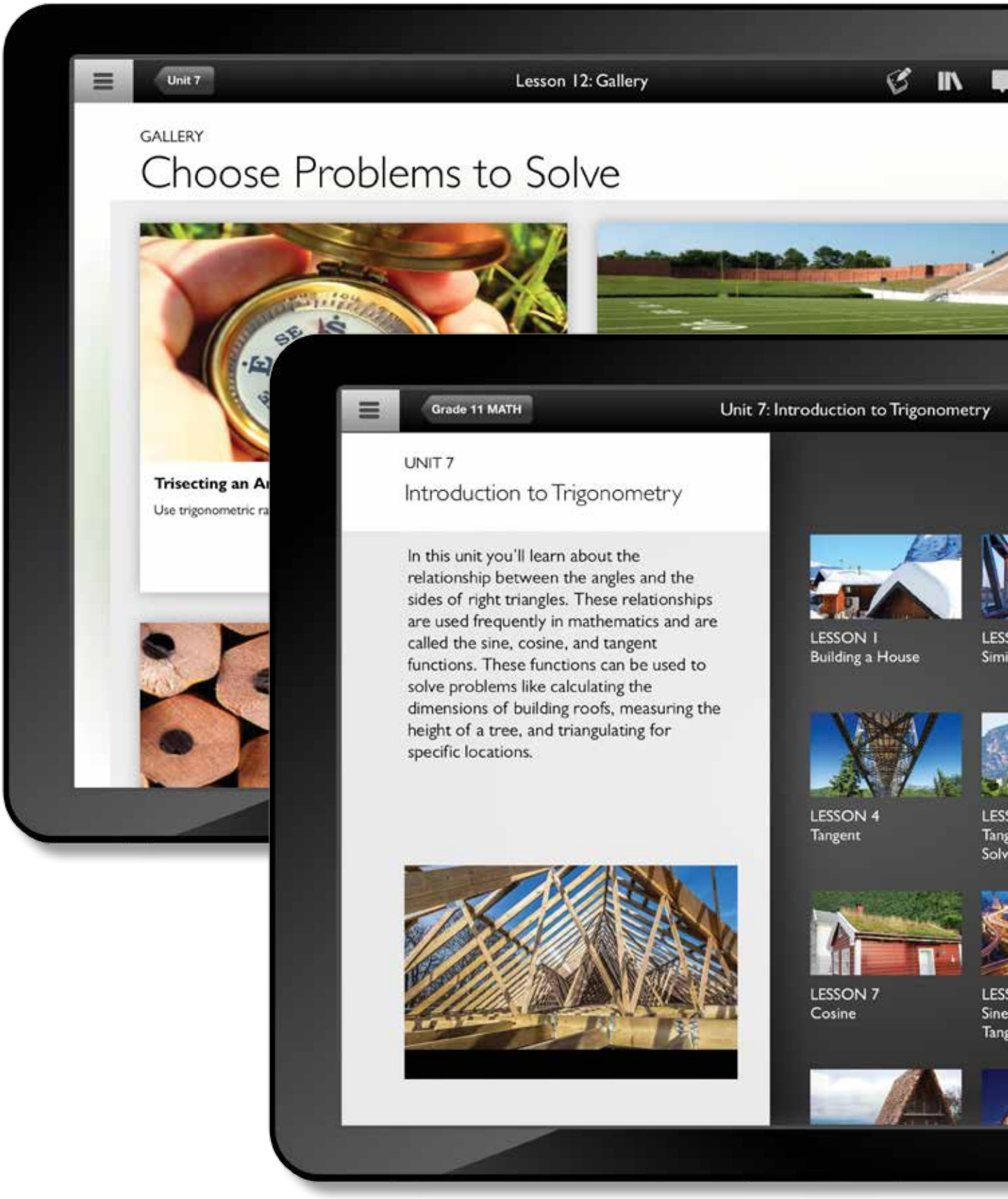
The reading groups are also important vehicles for differentiation and personalization of instructions. Groups can be formed based on specific areas of weakness, and books can be assigned that target those areas. Teachers can make a group very small, if needed, and intervene in particular groups more frequently to provide more support. Because of the wide variety of tasks presented in the units, teachers can differentiate instruction by guiding students with disabilities toward task types that will be particularly beneficial to them in mastering grade-level standards. Different task types focus on different learning strategies, and thus have different access points to learning.

Throughout the mathematics courses, lesson and unit structures provide time for teachers to conduct interventions with students in a number of ways. For example, most lessons include a Challenge Problem for students to work on. Students not ready for these problems can instead spend time working with teachers on the regular Work Time tasks. In addition, each concept unit includes a series of Gallery lessons containing diverse problems. Students can choose one or two, and then solve them independently. During these lessons, students needing additional support can meet with the teacher in Guided Math Groups or work with a peer. Throughout the day, teachers have multiple opportunities for informal assessments through conversation and observations of lesson tasks, and teachers can use observation forms and in-class profiles to capture notes. Moreover, formal assessment occurs regularly and systematically throughout each unit of instruction.

Support for Diverse Populations

Not all children learn the same way, or begin their learning with the same set of skills and experiences. For this reason, the Pearson System of Courses provides specific supports for English language learners (ELLs), students with disabilities, and gifted and talented students.

Detailed notes to both teachers and students provide scaffolding and adaptations for diverse populations. The teaching notes outline specific supports that these students can make use of as they learn subject content. These supports are built directly within the routines that make up much of the classroom instruction. In addition, professional development resources help teachers fully understand the way the routines work, and the ways in which teachers can use the adaptations and accommodations to enhance participation and achievement of students representing diverse populations. In addition, specific course components also address the needs of diverse populations.


Unit 7
Lesson 12: Gallery
GALLERY
Choose Problems to Solve
Trisecting an A
Use trigonometric ra
Grade 11 MATH
Unit 7: Introduction to Trigonometry
UNIT 7
Introduction to Trigonometry
In this unit you'll learn about the relationship between the angles and the sides of right triangles. These relationships are used frequently in mathematics and are called the sine, cosine, and tangent functions. These functions can be used to solve problems like calculating the dimensions of building roofs, measuring the height of a tree, and triangulating for specific locations.
LESSON 1
Building a House
LESSON 4
Tangent
LESSON 7
Cosine

Developed by Leading Educators and Researchers for Educators and Students

The Pearson System of Courses is not a repurposed or re-aligned set of instructional materials but an entirely new, comprehensive approach to providing the instructional materials, tools, and resources school leaders and classroom teachers need to support all students to be college and career ready.

The courses have been piloted in a variety of settings across the United States and have involved thousands of students and teachers. Students are telling us that, in fact, the learning experiences are more like the learning they do outside of the classroom. They feel more engaged and in charge of their own learning. Many students tell us they are having fun, and one said it is making him smarter.

And teachers are telling us that for the first time in many years, students are coming to class excited to learn. They do not have to waste time on many classroom management and behavior issues. Teachers also report that they really appreciate that way materials are designed to help them support all learners. Teachers and students both comment on the flexibility that the technology provides. They see the courses are aligned to the standards for which they are responsible and find the supports especially helpful. They also tell us they want much more support in their classrooms since the pedagogy and expectations go beyond their past experiences. In addition to the personal responses of principals, teachers and students, we have engaged the Consortium for Policy Research in Education to do an independent, third-party evaluation of the program.

The design and development of the Pearson System of Courses is led by Dr. Judy Codding, a former elementary, middle and high school teacher, high school principal, co-author of three books on standards-based reform, and someone who has seen first hand and written about teaching and learning in over twenty of the highest performing countries in the world, including Singapore, Japan, and Finland, all providing the background for the internally benchmarked, research-based, and practical materials for the Pearson System of Courses.

The authors of the Pearson System of Courses are leaders and writers of the CCSS. Dr. Sally Hampton, lead designer for PSoC ELA, chaired the College and Career Readiness Standards Panel and served on the English Language Arts Work Group for the Common Core State Standards Initiative, served as Director of English Language Arts for the National Center on Education and the Economy, a Senior Scholar at the Carnegie Foundation for the Advancement of Teaching, and authored many publications on standards and writing development. Phil Daro, lead designer for PSoC Mathematics, served on the mathematics work group of the Common Core State Standards Initiative, was Executive Director of the Public Forum on School Accountability, directed the New Standards Project, and managed research and development for the National Center on Education and the Economy.

In addition, the content development team is overseen by national leaders in curriculum design and school reform. Dr. Sherry King, leader of professional development and implementation of PSoC, as well as overseeing the development of the ELA coursework, worked in partnership with states and districts to raise the performance of low-performing schools, served as a superintendent, a high school principal, assistant principal, and English teacher, and participated in national research group projects. Dr. Susan Sclafani, leader of the framework development, research, and evaluation activities of PSoC, formerly served in national think tanks and international consultant groups that assisted US educators in learning about effective international prctices through papers and conference presentations and in learning from visits to high-performing countries, and was Counselor to the Secretary of Education in the US Department of Education, Assistant Secretary in the US Department of Education, and represented the US in OECD and APEC on education issues, and served in key leadership positions in a large urban district. Marjorie Cappo, leading the mathematics development team and the initial production team for both ELA and mathematics, is Founder and President of Learning in Motion, Inc., a software publisher and educational consulting firm, and has designed over fifty award-winning programs.

The development team includes many talented curriculum writers and teachers who worked to develop the courses, as well as many teachers, principals, and superintendents who provided valuable feedback on the drafts of the courses

The courses were overseen by a national ELA advisory group and an international advisory group of leaders in mathematics and mathematics education, whose names are listed below.

ELA Advisors include: Donna E. Alvermann, University of Georgia; Mark Bauerlein, Emory University; Janice A. Dole, University of Utah; Nell K. Duke, Michigan State University; Steve Graham, Vanderbilt University; Walter Kintsch, University of Colorado at Boulder; Carol D. Lee, Northwestern University; Margaret G. McKeown, University of Pittsburgh; Sandra Murphy, UC Davis; P. David Pearson, UC Berkeley; Catherine E. Snow, Harvard University; William J. Strong, Utah State University; Karen K. Wixson, University of Michigan.

Mathematics advisors include Hugh Burkhardt, Daniel Pead, Malcolm Swan, and Geoffrey Wake from the Shell Centre for Mathematical Research, Nottingham, England; Jan de Lange, The Freudenthal Institute, The Netherlands; LEE Peng Yee, NIE, Singapore; Charles Lovitt, Victoria, Australia; Ian Lowe, Mathematical Association of Victoria, Australia; Dan Meyer, Stanford University, California; NG Swee Fong, NIE, Singapore; Akihito Takahashi, Tokyo Gakugei University, Project IMPULS (International Math-teacher Professionalization Using Lesson Study). and DePaul University, Chicago; Tad Watanabe, Kennesaw State University, GA; Michal Yerushalmy, University of Haifa.

SECTION TWO: RESEARCH FOUNDATIONS FOR THE PEARSON SYSTEM OF COURSES

Theoretical Foundations

System-level design:

Fullan, M. and Donnelly, K. 2013, *Alive in the Swamp: Assessing Digital Innovations in Education*. London, England: Nesta Innovation Foundation.

Fullan, M. 2012. Stratosphere: Integrating Technology, Pedagogy and Change Knowledge. Toronto, Canada: Pearson Canada.

Barber, M. (2010). *How The World's Most Improved School Systems Keep Getting Better*. New York: McKinsey and Company

Barber, M. (2008). Instruction to Deliver: Fighting to Reform Britain's Public Services. London, England: Metheun.

Barber, M. (2007). *How The World's Best-Performing Schools Come Out On Top*. New York: McKinsey and Company

Elmore, R. F. (2006). School Reform from the Inside Out. Cambridge.MA: Harvard Education Publishing Group.

National Center on Education and the Economy (2006). Tough Choices or Tough Times: The Report of the New Commission on the Skills of the American Workforce. San Francisco, CA: Jossey-Bass

Glennan, T.K., S. J. Bodily, J. R. Galegher, and K.A. Kerr. (2004). Expanding the Reach of Education Reforms. Santa Monica, CA: RAND Corporation.

Fullan, M. (2001). The New Meaning of Educational Change. New York: Teachers College Press.

Marsh, D. D., and J. B. Codding. (1999). The New American High School. Thousand Oaks, CA: Corwin Press.

Tucker, M. S., and J B. Codding (1998). Standards For Our Schools. San Francisco, CA: Jossey-Bass.

Elmore, R. (1996). Getting in scale with good educational practice. Harvard Educational Review, 66(1), 1-26.

Senge, P. M. (1990). The Fifth Discipline: The Art and Practice of the Learning Organization. New York: Currency Doubleday.

National Center on Education and the Economy (1989). America's Choice: High Skills or Low Wages: The Report of the Commission on the Skills of the American Workforce. San Francisco, CA: Jossey-Bass

Design of Critical Components

Fullan, M. and Langworthy, M., (2014). A Rich Seam: How New Pedagogies Find Deep Learning, London: Pearson.

Hill, P., (2013). "The role of assessment in measuring outcomes" from *Asking More: The Path to Efficacy*, ed. Michael Barber and Saad Rizvi, London: Pearson, p. 63-67.

Bryk, A. S., P. B. Sebring, E. Allensworth, S. Luppescu, and J. Q. Easton. (2010). Organizing Schools for Improvement: Lessons from Chicago. Chicago: University of Chicago Press.

Drago-Severson, E. (2009). Leading Adult Learning. Thousand Oaks, CA: Corwin Press.

Glazer, J. L. (2009). How External Interveners Leverage Large-Scale Change: The Case of America's Choice, 1998-2003. (Educational Evaluation and Policy Analysis, 31(3), 269-297.

Guskey T. R., M. A. Munoz, and J. Aberli. (2009). Fast Track to Literacy. Journal of Staff Development, 30(4), 32-39.

Muñoz, M.A., T. R. Guskey, and J. R. Aberli, J.R. (2009). Struggling readers in urban high schools: Evaluating the impact of professional development in literacy. Planning and Changing, 40 (1&2), 61-85.

Rowan, B, R Correnti, R. J. Miller, and E. M. Camburn (2009). School Improvement by Design: Lessons from a Study of Comprehensive School Reform Programs. Handbook of Education Policy Research (G. Sykes et al. eds. New York: Routledge.

ACT. (2008). The Forgotten Middle: Ensuring All Students are On Course for College and Career Readiness Before High School. Iowa City, IA: Author.

ACT. (2007). Rigor at Risk: Reaffirming Quality in the High School Core Curriculum. Iowa City, IA: Author.

Correnti, R.,and B. Rowan. (2007). Opening up the Black Box: Literacy Instruction in Schools Participating in Three Comprehensive School Reform Programs. American Educational Research Journal, 44(2), 298-338.

Muñoz, M.A. (2007). Improving reading in high schools: Outcomes of Ramp-Up to Advanced Literacy in a large urban district. Planning and Changing, 38 (1&2), 89–107.

ACT. (2006). On Course for Success: A Close Look at Selected School Courses that Prepare All Students for College and Work. Iowa City, IA: Author.

Fullan, M. (2006). Turnaround Leadership. San Francisco, CA: Jossey-Bass.

Fullan, M., P.W. Hill, and C.Crevola. (2006). Breakthrough. Thousand Oaks, CA: Corwin Press.

McLaughlin, M. W. and J E. Talbert (2006). Building School-Based Teacher Learning Communities. New York: Teachers College Press.

May, H., J. A. Supovitz, and D. Perda. (2006). Capturing the Cumulative effects of School Reform: An Eleven-Year Study of the Impacts of America's Choice on Student Achievement. Educational Policy Evaluation and Analysis. 28(3), 231-257.

McCarthy, M. and G. D. Kuh. (2005). Student Engagement: Missing Link in Improving High Schools. Teachers College Record, September.

Marzano, R. J., T. Waters, and B. A. McNulty. (2005). School Leadership That works: From Research to Results. Alexandria, VA: McREL & ACSD.

May, H., J. A. Supovitz, and J. Lesnick. (2004). The Impact of America's Choice on Students' Writing Performance in Georgia in the First Year. Philadelphia, PA: CPRE.

National Research Council (2004). Engaging Students: Fostering high school students' motivation to learn. Washington, DC: The National Academies Press.

Passantino, C and P. Kannapel. (2004). Reaching Teaching: The Impact of the America's Choice Program on Teachers and Teaching. Philadelphia, PA; CPRE.

Bach, A. J., and Supovitz, J. A. (2003). Teacher and Coach Implementation of Writers Workshop in America's Choice Schools, 2001 and 2002. Philadelphia, PA: CPRE.

Borman, G. D., Hewes, G. M., Overman, L. T., & Brown, S. (2003). Comprehensive school reform and achievement: A meta-analysis. Review of Educational Research, 73(2), 125-230.

Poglinco, S. M., A. J. Bach, K. Hovde, S. Rosenblum, M. Saunders, and J. A. Supovitz. (2003). The Heart of the Matter: The Coaching Model in America's Choice Schools. Philadelphia, PA: CPRE.

Supovitz, J. A., and H. May. (2003). The Relationship Between Teacher Implementation of America's Choice and Student Learning in Plainfield, New Jersey. Philadelphia, PA: CPRE.

Supovitz, J. A. and V. Klein. (2003). Mapping a Course for Improved Student Learning: How Innovative Schools Systematically Use Student Performance Data to Guide Improvement. Philadelphia, PA: CPRE.

Crane, T. G. (2002). The Heart of Coaching. San Diego, CA: FTA Press.

Hill, P.W. (2002). What principals need to know about teaching and learning. In M.S. Tucker. & J.B. Codding, (Eds.), The principal challenge: Leading and managing schools in an era of accountability (pp.43-75). San Francisco: Jossey-Bass.

H Supovitz, J. A., B. S. Taylor, and H. May (2002). Impact of America's Choice on Student Performance in Duval County, Florida. Philadelphia, PA: CPRE.

Supovitz, J. A., S. M. Poglinco, and A. J. Bach. (2002). Implementation of the America's Choice Literacy Workshops. Philadelphia, PA: CPRE.

Supovitz, J.A., and S. M. Poglinco, (2001). Instructional Leadership in a Standards-based Reform. Philadelphia, PA: CPRE.

National Research Council (2000). How People Learn: Brain, Mind, Experience and School. Washington, DC: The National Academies Press.

Bolman, Lee. G., and Terrence E. Deal. (1997). Reframing Organizations. San Francisco, CA: Jossey-Bass. Empirical Research.

Research Foundations of Curriculum Components Of PSOC

English Language Arts

Schmoker, M. 2006. Results now: How we can achieve unprecedented improvements in teaching and learning. Alexandria, VA: Association for Supervision & Curriculum Development.

Beck, I.L., M.G. McKeown, and L. Kucan. 2002. Bringing Words to Life: Robust Vocabulary Instruction. New York: The Guilford Press.

Reznitskaya, A., R.C. Anderson. 2002. The argument schema and learning to reason. M. Pressley and C. Block, eds. Comprehension instruction: Research-based best practices. 319–334. New York: Guilford Publishing.

Vacca, R. 2002. From efficient decoders to strategic readers. Educational Leadership, 60(3): 6–11.

Kintsch, W. 1998. Comprehension: A paradigm for cognition. Cambridge; New York, NY, USA: Cambridge University Press.

Pearson, P.D., and L. Fielding. 1996. Comprehension instruction. R. Barr, M. L. Kamil, and P. Mosenthal, eds. Handbook of reading research. 861–883. Hillsdale, NJ: Earlbaum.

Kintsch, W. 1988. The use of knowledge in discourse processing: A construction integration model.Psychological Review, 95.

Kintsch, W., and T.A. van Dijk. 1978. Toward a model of text comprehension and production. Psychological Review, 85.

Kintsch, W. 1974. The representation of meaning in memory. Hillsdale, N.J.: Lawrence Erlbaum Associates.

Mathematics

Bell, A. & M. Swan. 2006. Mathematics Assessment Resource Service (MARS Project). Collaborative project with Michigan State University, Funded by the National Science Foundation. Washington, DC.

American Educational Research Association. 2005. Teaching Teachers: Professional Development To Improve Student Achievement. L. B. Resnick, ed., J. Hill & D. Cohen, Issue Researchers. AERA Research Points: Essential Information for Educational Policy 3(1): Summer 2005.

Bell, A. 2005. Introduce Diagnostic Teaching. Alan Bell and the Toolkit Team. A Strategy in the Toolkit for Change Agents. MARS, Michigan State University.

Donovan, M.S. & J.D. Bransford, eds. 2005. How Students Learn: History, Mathematics, and Science in the Classroom. Board on Behavioral, Cognitive, and Sensory Sciences and Education. Washington, DC: National Academy Press.

Swan, M. 2005. Improving Learning in Mathematics: Challenges and Strategies (Standards Unit). Department for Education and Skills Standards Unit. University of Nottingham.

Hill, H. & D.L. Ball. 2004. Learning mathematics for teaching: Results from California's mathematics professional development institutes. Journal for Research in Mathematics Education 35(5): 330–351.

Ma, L. 1999. Knowing and Teaching Elementary Mathematics. Mahwah, NJ: Erlbaum.

Resnick, L. 1999. Making America Smarter: A Century's Assumptions About Innate Ability Give Way to a Belief in the Power of Effort. Education Week (June 16) 38–40.

Vygotsky, L.S. 1978. Mind in Society: The development of higher psychological processes. M. Cole, V. John-Steiner, S. Scribner, E. Souberman, eds. Cambridge, MA: Harvard University Press.

Vygotsky, L.S. 1962. Thought and Language. Cambridge, MA: MIT Press.

Literacy intervention

National Center for Education Statistics, United States Department of Education. (2006b). Language Minority School-Age Children. In The Condition of Education, Participation in Education. Indicator 7 (2006). Web site: http://nces.ed.gov/programs/coe/2006/section1/indicator07.asp

Rubin, R. & V.G. Carlan. 2005. Using writing to understand bilingual children's literacy development. The Reading Teacher: 58(8): 728-739.

Duke, N.K. 2004, May. Strategies for improving comprehension. Paper presented at the annual convention of the International Reading Association, Reno, Nevada.

Guthrie, J.T., A. Wigfield, P. Barbosa, K.C. Perencevich, A. Taboada, M.H. Davis, N.T. Scafiddi, S. Tonks. 2004. Increasing Reading Comprehension and Engagement Through Concept-Oriented Reading Instruction. Journal of Educational Psychology: 96(3).

Snow, C., & G. Biancarosa. 2004. Reading Next: A Vision for Action and Research in Middle and High School Literacy. New York: Alliance for Excellence Foundation.

Tompkins, G.E. 2003. Literacy for the twenty first century. Upper Saddle River, NJ: Merrill, Prentice Hall, Pearson.

Fearn, L., & N. Farnan. 2001. Interactions: Teaching writing and the language arts. Boston: Houghton Mifflin.

Gass, S.M., & L. Selinker. 2001. Second language acquisition: An introductory course. 2nd ed. Mahwah, NJ: Lawrence Erlbaum.

Gersten, R., L.S. Fuchs, J.P. Williams, & S. Baker. 2001. Teaching reading comprehension strategies to students with learning disabilities: A review of research. Review of Educational Research: 71, 279-320.

Rubinstein-Avila, R. 2001. From their points of view: Literacy practices among Latino immigrant students. Unpublished doctoral dissertation, Harvard Graduate School of Education, Cambidge, MA.

Guthrie, J.T., & A. Wigfield. 2000. Engagement and Motivation in Reading. In. M. L. Kamil, P. B. Mosenthal, P. D. Pearson, & R. Barr, eds., Handbook of reading research (3rd. ed., pp. 403-422). New York: Longman.

National Reading Panel. (2000). Teaching children to read: An Evidence-Based Assessment of the Scientific Research Literature on Reading and Its Implications for Reading Instruction. Washington, DC: National Institute of Child Health and Human Development.

Tomlinson, C.A., & M.L. Kalbfleisch. (1998). Teach me, teach my brain: A call for differentiated classrooms. Educational Leadership. 56(3): 52-56.

Mathematics intervention

American Educational Research Association. (2005). Teaching Teachers: Professional Development To Improve Student Achievement. L. B. Resnick, ed., J. Hill & D. Cohen, Issue Researchers. AERA Research Points: Essential Information for Educational Policy 3(1): Summer 2005.

Chapin, S., C. O'Connor, & A.N. Canavan Anderson. (2003). Classroom Discussions: Using Math Talk to Help Students Learn. Grades K–6. Sausalito, CA: MathSolutions Press.

Fillmore, L. W., & C. Snow. (2002). What Teachers Need to Know about Language. C. Temple Adger, C. E. Snow, D. Christian, eds., Language in Education 97. Delta Systems Co., Inc.

Ginsburg, A., S. Leinwand, T. Anstrom, E. Pollock, & E. Witt, eds. (2005). What the United States Can Learn From Singapore's World-Class Mathematics System (and What Singapore Can Learn from the United States): An Exploratory Study. Prepared for the United States Department of Education by American Institutes for Research. Washington, DC: U.S. Dept. of Education. Web site: http://www.air.org/news/documents/singapore%20edweek.htm

Ma, L. (1999). Knowing and Teaching Elementary Mathematics. Mahwah, NJ: Erlbaum.

Resnick, L., & Nelson-Le Gall, S. (1997). Socializing Intelligence. In L. Smith, J. Dockrell, & P. Tomlinson, eds. Piaget, Vygotsky and Beyond. London and New York: Routledge.

Lodholz, R.D. (1990). The Transition from Arithmetic to Algebra. In B. Moses, ed., Algebraic Thinking, Grades K–12: Readings from NCTM's School-based Readings and Other Publications. 1999. 52–58. Reston, VA: National Council of Teachers of Mathematics.

Usiskin, Z. (1980). What Should Not Be in the Algebra Curriculum of Average College-Bound Students. In B. Moses (Ed.), Algebraic Thinking, Grades K–12: Readings from NCTM's School-based Readings and Other Publications. 1999. 76–81. Reston, VA: National Council of Teachers of Mathematics.

Vygotsky, L.S. (1978). Mind in Society: The development of higher psychological processes. M. Cole, V. John-Steiner, S. Scribner, E. Souberman, eds. Cambridge, MA: Harvard University Press.

Vygotsky, L.S. (1962). Thought and Language. Cambridge, MA: MIT Press.

The Teacher Matters Most

Hill, Heather C., Brian Rowan, and Deborah Loewenberg Ball. (2005). "Effects of Teachers' Mathematical Knowledge for Teaching on Student Achievement." American Educational Research Journal 42.2: 371-406.

Rivkin, Steven G., Eric A. Hanushek, and John F. Kain. (2005). "Teachers, Schools, and Academic Achievement." Econometrica 73.2: 417-458.

Carey, Kevin. (2004). "The Real Value of Teachers: Using Information about Teacher Effectiveness to Close the Achievement Gap." Thinking K-16 8.1: 3-32.

Nye, Barbara, Spyros Konstantopoulos, and Larry Hedges. (2004). "How Large Are Teacher Effects?" Educational Evaluation and Policy Analysis 26.2: 237-257.

Rockoff, Jonah E. (2004). "The Impact of Individual Teachers on Student Achievement: Evidence from Panel Data." The American Economic Review 94.2: 247-252.

Darling-Hammond, Linda. (1999). Teacher Quality and Student Achievement: A Review of State Policy Evidence. Seattle, WA: Center for the Study of Teaching and Policy, University of Washington.

We Learn Through and With Others

Johnson, David W., and Roger T. Johnson. (2009). "An Educational Psychology Success Story: Social Interdependence Theory and Cooperative Learning." Educational Researcher 38.5: 365-379.

Williams, Susan. (2009). The Impact of Collaborative, Scaffolded Learning in K-12 Schools: A Meta-Analysis. The Metiri Group, commissioned by Cisco Systems.

Johnson, David, Robert Johnson, and Edythe Johnson Holubec. (2008). Cooperation in the Classroom, 8th edition. Interaction Book Co..

Resta, Paul, and Thérèse Laferrière. (2007). "Technology in Support of Collaborative Learning." Educational Psychology Review 19.1: 65-83.

Cohen, Elizabeth. (1994). Designing Groupwork: Strategies for the Heterogeneous Classroom, 2nd edition. Teacher College Press.

Slavin, Robert E. (1994). Cooperative Learning: Theory, Research and Practice, 2nd edition. Pearson.

The Curriculum Matters

Duffett, Ann and Timothy Shanahan. (2013). Common Core in the Schools: A First Look at Reading Assignments. Washington, D.C: Thomas B. Fordham Institute.

Robb, Laura. (2013). Unlocking Complex Texts: A Systematic Framework for Building Adolescents Comprehension. Scholastic Teaching Resources.

Fisher, Douglas, Nancy Frey, and Diane Lapp. (2012). Text Complexity: Raising Rigor in Reading. International Reading Association.

Jago, Carol. (2011). With Rigor for All: Meeting Common Core Standards for Reading Literature. Heinemann.

Resnick, Lauren. "Nested Learning Systems for the Thinking Curriculum." Educational Researcher 39.3 (2010):183-197.

McConachie, S.M. and A.R. Petrosky (Eds).. (2009). Content Matters: A Disciplinary Literacy Approach to Improvingn Student Learning. Jossey-Bass, 2009.

The Vision Behind the Standards

For more information about the standards and their implementation, see:

Common Core State Standards Initiative website.

www.corestandards.org

Smarter/Balanced content specification website.
www.smarterbalanced.org

PARCC Model Content Framework website.
www.parcconline.org