SREB Backgrounder

The policy and development context behind SREB Readiness Courses

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SREB

Southern Regional Education Board SREB.org

SREB Readiness Courses: Transitioning to College and Careers

SREB has worked in the area of college and career readiness for more than two decades. The organization has always placed a priority on the need for students to graduate high school ready for postsecondary pursuits — from two-year and technical degrees or certificates to four-year degrees and beyond. And to support these college- and career-readiness goals, SREB has consistently provided tools and assistance to its member states.

For the last six years, SREB has secured grant funding to help states build tools for the classroom that will change the way students prepare for high school graduation and life after graduation. In 2007, SREB secured a grant from the Bill & Melinda Gates Foundation to build out the policy agenda for college and career readiness SREB developed in working with states on these issues and to work directly with five states to apply that agenda. The grant, titled Strengthening Statewide College- and Career-Readiness Initiative (SSCRI), created the Action Agenda, which included five key policy elements recommended for states to establish a comprehensive, statewide college- and career-readiness agenda that would affect real change in high school students. (See next page.)

Fast forward to 2013, and the discussion in our nation is considerably different. The movement of the Common Core State Standards has pushed this topic into the forefront and has forced states to look deeply into the policy areas of readiness, standards and assessments.

Every state now has adopted a set of college- and career-readiness standards, whether the Common Core or developed independently. And because of the national assessment consortia — Partnership for Assessment of Readiness for College and Careers (PARCC) and Smarter Balanced — the discussion of appropriate assessments aligned to the chosen standards is at an all-time high.

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From 2007 to 2010, through the SSCRI grant, SREB helped steer those conversations before the Common Core took shape. SREB helped five states to individually build what were called "transitional courses" for high school students who needed extra help to reach the state's designated college- and career-readiness level. As a result, Kentucky, Florida and West Virginia implemented their courses statewide, requiring transitional courses for seniors who are assessed as not meeting the readiness benchmarks as sophomores or juniors. The courses, taken in the final year(s) of high school, would target weaknesses and skill gaps and prepare them for college-level courses, allowing them to skip remediation. This was a large undertaking, but the states saw positive results statewide from the courses they built. For example, Kentucky saw a 14 percent increase in students meeting college-readiness benchmarks from 2010 to 2012, according to the Kentucky Department of Education's College and Career Readiness 2012 Stocktake Report. The 2013 report is expected to reflect an increased percentage of students who meet the benchmarks. Additional information on Kentucky's implementation of higher standards and college- and career-readiness statewide requirements can be found in the *Kentucky Journal of Excellence in College Teaching and Learning*.

SREB's College- and Career-Readiness Action Agenda calls for states to:

- 1. Adopt statewide readiness standards. Establish postsecondary readiness standards for literacy and math skills; ensure the skills are emphasized in course work; and have K-12 and postsecondary education agree on the standards.
- 2. Assess high school juniors. Determine students' progress in achieving the readiness standards.
- 3. **Offer transitional readiness courses.** Offer supplemental postsecondary-readiness courses and require juniors who were assessed as underprepared to take the classes in grade 11 or grade 12.
- 4. **Apply the standards in college.** Ensure that public postsecondary institutions apply the standards in deciding if students need additional learning support after admission and, if so, the form of such support.
- 5. Hold schools accountable. Include increasing postsecondary readiness as an important criterion in school accountability systems.

For more about the Action Agenda, the grant and states' transitional courses from previous years, see:

Beyond the Rhetoric

State College and Career Readiness Initiative: Statewide Transitional Courses for College Readiness State College and Career Readiness Initiative: Final Progress Reports Teacher Guidelines brochure

SREB's Current Work

After the successes of these individually built and applied state transitional courses, SREB secured an additional grant from the Gates Foundation entitled Advancing Common Core Standards, Educator Effectiveness and College Readiness in SREB States. This grant worked in six areas, one of which was to build "model" transitional courses by a cadre of states in the region. SREB now calls these model transitional courses SREB Readiness Courses.

Charge of the Grant

SREB requested grant funding to develop two readiness courses, one in mathematics and one in disciplinary literacy. These courses would be implemented in high schools in five or more states to help underprepared students reach their state's college- and career-readiness benchmarks before high school graduation. The courses were to be built around the Common Core and other highly rigorous standards and were to include teacher guidelines and in-course assessments. SREB also was tasked with developing online versions of the courses, as well as offering professional development resources and helping states develop policy that supported statewide implementation of the new curriculum. A policy brief was developed for this purpose and can be found online: Essential Elements of College Completion: Transitional Courses for College and Career Readiness.

Purpose of the Courses

These model courses will serve any state that wishes to use them. Because they are built around the Common Core, every state, even those who have not adopted the Common Core, can easily use and adapt them to meet the agreed-upon needs of students. The Readiness Courses are designed to assist students who are assessed as "unready" for postsecondary education (meaning they do not reach the state's college- and career-readiness benchmarks on either the ACT, SAT, PARCC, Smarter Balanced or other assessment) to become prepared and reach those benchmarks. These courses are best suited for the middle range of students, not those who can succeed in Advanced Placement courses or who are severely behind. The courses are built with rigor, innovative instructional strategies, and a concentration on contextual learning that departs from procedural memorization and focuses on engaging the students in a real-world context. They provide literacy strategies that allow students to read and comprehend all manner of texts and genres in every core discipline or numeracy skills not yet fully understood in the typical high school math class. In short, these courses target students with weaknesses and college-ready skill gaps and re-educate them in new ways to ensure they are prepared for postsecondary-level pursuits.

Development Process

SREB began working with five states in late 2011, setting up teams of educators to begin formulating the curriculum outlines and drafting both the math and disciplinary literacy courses. These teams consisted of K-12 educators; faculty from two- and fouryear colleges and universities and technical colleges; state agency personnel from secondary and postsecondary state agencies; and national experts, including contributors to the Common Core. The first five states were Arkansas, Georgia, Kentucky, North Carolina and Tennessee. In the summer of 2012, representatives from Oklahoma also began to assist with writing the draft course units. SREB engaged regional and national experts in math and disciplinary literacy curriculum to lead these teams. The content was guided by the standards, instructional strategies and tools suggested by experts, but written by the states.

Review and Revision Process

In fall 2012, SREB partnered with PARCC to bring on an additional eight states to review the draft units and provide feedback for revisions. Oklahoma became a review state and was joined by Arizona, Colorado, Florida, Indiana, Louisiana, Mississippi, New York and Ohio. Later, Arizona was compelled to pull out of the project. Contributors from these states, from educators to state representatives, provided detailed reviews of all units in each course. In addition, Achieve Inc. provided a review of the drafts in spring 2013. SREB began field-testing individual course units in 20 classrooms in four of the original states. Feedback from reviewers and testers led to a six-month review process ending in early fall 2013. During this time, three more states joined the project with interest in piloting the courses after completion - Delaware, Maryland and West Virginia.

The outcomes of this extensive development and revision process are the two SREB Readiness Courses — Literacy Ready and Math Ready — published in late October 2013 at SREB.org/Ready. The courses are available free of cost to any state, district, school or teacher who wishes to download them, after a simple registration process. SREB encourages states to provide this curriculum on their websites as well. Additional resources, including informational publications and slide presentations, are also available on the website.

SREB Readiness Courses: Math Ready and Literacy Ready

Math Ready: Ready for college-level math

The Math Ready course focuses on the key readiness standards from the Common Core as well as the eight Standards of Mathematical Practices needed for students to be ready to undertake postsecondary academic or career preparation in non-STEM fields or majors. The course addresses standards throughout high school and even earlier, including Algebra I, statistics and geometry, and the Algebra II standards agreed to as essential college- and career-readiness standards for most students. The full range of content standards found in Algebra II is not addressed because some are not seen as essential college- and career-readiness standards for non-STEM math courses. The math course consists of seven mandatory modules: expressions, equations, exponentials, linear functions, measurement, quadratics, systems, and statistics (optional). While this course covers the basics in math practices and reviews the procedural steps needed to be successful in math, it is designed to be taught in a new, engaging way based heavily on conceptual teaching and learning. The following gives a brief description of Math Ready course units:

Unit 1: Algebraic Expressions

This unit is designed to solidify student understanding of expressions, while giving students an opportunity for early success in the course. The recurring theme focuses on engaging students in using and expanding the concepts found within purposefully chosen activities. Through guided lessons, students manipulate, create and analyze algebraic expressions and look at the idea of whether different sets of numbers are closed under certain operations. The writing team selected familiar content to build students' confidence and to acclimate them to the course's intended approach to instruction.

Unit 2: Equations

The equations unit calls for students to construct and evaluate problems that involve one or two steps, while seeking understanding of how and why equations and inequalities are used in their daily lives. Students also are asked to use the structure of word problems and equations to rewrite and solve equations in different forms, revealing different relationships.

Unit 3: Measurement and Proportional Reasoning

This unit deals with unit conversions, using proportions for scaling, and area and volume.

The unit requires higher-order thinking and number sense in order to get to the true intent of the standards covered. It is useful in helping students make connections with math, science or other subjects.

Math

Ready

Math Ready

Unit 4: Linear Functions

This unit takes students back to the foundation of all high school mathematics — an in-depth study of linear functions. Along with allowing students to differentiate between relations that are functions and those that are not, the unit helps students specifically examine characteristics of linear functions. By looking closely at linear functions in multiple forms, students are expected to graph and write equations, as well as to interpret their meaning in context of the slope and y-intercept. Students conclude with a project allowing them to collect their own data and write a line of best fit from that data.

Unit 5: Linear Systems of Equations

The systems unit deals with solving systems of linear equations. This involves helping students classify solutions (one, none or infinitely many), as well as set up and solve problems using systems of equations. This unit also asks students to choose the best way to solve a system of equations and be able to explain their solutions.

Unit 6: Quadratic Functions

Unit 6 is an expansive look at quadratic functions: their graphs, tables and algebraic functions. It stresses multiple approaches to graphing, solving and understanding quadratics, as students explore, make conjectures and draw conclusions in groupwork settings. In this unit, students explore and learn from multiple applications of quadratics. The unit assumes students have seen quadratics before but may not have a concrete, transferrable understanding of quadratic functions. The unit does not cover algebraic manipulations (multiplying and factoring), as these are in earlier units.

Unit 7: Exponential Functions

This unit develops students' fluency in exponential functions through varying real-life financial applications/inquiries. The unit builds student understanding of these higher-level functions and gives them the opportunity to reflect upon the ramifications of their future financial choices.

Unit 8: Summarizing and Interpreting Statistical Data (optional)

In this unit, students further develop skills to read, analyze and communicate (using words, tables and graphs) relationships and patterns found in data sets of one or more variables. Learning how to choose the appropriate statistical tools and measurements to assist in the analysis; being able to clearly communicate results either in words, graphs or tables; and being able to read and interpret graphs, measurements and formulas are crucial skills to have in a world overflowing with data. Students explore these concepts while modeling real contexts based on data they collect.

> Literacy Ready

Literacy Ready

Literacy Ready: Ready for reading in all disciplines

The SREB Readiness Course entitled Literacy Ready is an innovative, dynamic course built to help students master the literacy skills needed for three core subject areas — English, social science and science. Literacy Ready consists of six units: two in history, two in English and two in science. Content of the discipline is at the forefront of the curriculum, while the disciplinary literacy skills are emphasized through reading and writing assignments based on the content. Units are focused on truly understanding how to read and interpret the text of the discipline on a college level. They are designed to be used as steppingstones, with the first module in each subject less rigorous and demanding than the last. The following gives a brief description of the six units of the Literacy Ready course:

Social Science (U.S. history or government)

Units are unified by the topic "concepts of liberty and freedom."

Unit 1: Civil Rights Movement

The first unit focuses on the Civil Rights Movement and the changes that took place over the period of the 1960s. Students draw information from a textbook chapter, a film, a lecture and a number of primary source documents as they learn to read history, to recognize implicit and explicit claims and evidence, to write a historical account, and to form arguments.

Unit 2: U.S. and Foreign Affairs

The second unit focuses on U.S. involvement in foreign affairs: the Cuban Missile Crisis and the Vietnam War. In this unit, students read multiple texts as well, but more emphasis is placed on writing historical arguments based on their reading. The texts and sources in this unit are more complex than in the first. Students will participate in a Socratic Seminar and write a final essay.

Science (biology)

Each unit has a different theme associated with science. The first unit evaluates science claims in health and nutrition; the second requires students to dig further to understand DNA structure and the future of biotechnology.

Unit 1: Nutrition

In this unit, students are introduced to disciplinary literacy in the sciences. Students learn strategies for reading multiple types of text, including science textbooks, research articles and news articles. They also learn a variety of ways to write about science — from personal reflection to public consumption — and to comprehend science information in multiple representations, including animations, diagrams, charts and tables.

Unit 2: DNA and Biotechnology

IIn this unit, students extend their understanding of reading and writing in the sciences as they read research articles and textbook material, take notes from lecture videos and make predictions using scientific models. The text material in this second science unit is more complex in both content and composition than the material in the first unit. Additionally, students are asked to write in more depth as they prepare and present an evidencebased scientific poster in a research symposium.

English (supplemental fourth-year or senior English)

Both units are designed to address the following essential question: "How is the exponential increase of information that we process in all forms of media affecting the way we live?"

Unit 1: Informational

The first unit involves students in reading informational text from Nicholas Carr's *The Shallows: What the Internet is Doing to Our Brains,* as well as a number of related supplemental texts. Students practice the following reading skills with an English disciplinary focus: literary epistemology; reading for argument, claim and evidence; reading for rhetorical strategies and patterns; and reading for internal and external connections. The unit conclusion involves students in collecting evidence for a stance-based synthesis presentation on a topic drawn from the central text. Students use the feedback received from peers and from the teacher to revise their syntheses and submit a synthesis essay.

Unit 2: Literary

The second unit moves into literary study, using *Ubik* by Philip K. Dick as the central text. In this unit, students read the central text and a variety of related supplemental texts. They practice the following reading skills with an English disciplinary focus: literary epistemology, close reading; inference, interpretation of rhetorical strategies and patterns, and reading for internal and external connections. The unit conclusion involves students in collecting and presenting evidence for a literary argument essay on one of three topics related to the central text. With a draft of the literary argument in hand, students participate in a debate related to a common question drawn from the theme of the novel.

Current and Next Steps

SREB will wrap up its current grant work by continuing to pilot the curriculum in high school classrooms in seven states until the end of the 2013-14 academic school year, as well as continuing to offer limited in-person and online teacher training. SREB also is developing online versions of the courses on iTunes U with Apple Inc. SREB is actively pursuing additional funding to continue and expand on this work with another grant beginning in 2014. Additional resources will be requested for more professional development for teachers, additional pilot testing, an external evaluation of the courses' effectiveness and additional pursuits.

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For more information: See SREB.org/Ready or scan the QR code.

