

Common Core State Standards Initiative

Resolving State and Classroom Implementation Issues

The *Common Core State Standards Initiative* is an education policy effort to develop and broadly disseminate a common core of K-12 content standards throughout our nation's classrooms. The initial objective is the development of a set of standards that define "the rigorous skills and knowledge in mathematics and English language arts that need to be effectively taught and learned."

The Initiative is led by the Council of Chief State School Officers and the National Governors Association Center for Best Practices in partnership with Achieve, ACT and the College Board. Its process, goals and timelines have been adopted by almost every governor, chief state school officer and national education policy-leader, including President Obama.

This Research Brief reviews the Initiative, its strategy, proposed processes and objectives in context with standards-based education research findings and other evidence. It answers key requirement questions related to that strategy and structure and examines the issues state and local education agencies, teachers and students will face as a result of a state's adoption of the new standards. (Appendix I)

Education's core mission is learning, and its core practice is teaching. Improved teaching (instruction) and student achievement are the Initiative's primary focus; therefore, its greatest challenges are at the classroom level. The key implementation questions are 1) how will state agencies get the unit and lesson plans of 40,000 classroom teachers in perfect alignment with the new standards and assessments and 2) how will the individual achievement progress of 56 million students align with them.

The more the common core standards identify and reference the precise knowledge and skills intend to be taught and assessed in the classroom, the more easily they will be communicated to, understood by, and effectively taught by teachers. Content knowledge and skills are the common denominator for teaching and learning and should be specified by the standards. They support and connect all education system processes and instructional objectives.

To achieve its goal of defining and disseminating a set of "fewer, clearer, more rigorous" content standards at the classroom level, the Initiative must be built upon a knowledge-centric foundation. This foundation also is essential if the Initiative hopes to ensure that the standards, and their corresponding curriculum and assessments, are in perfect alignment.

The Initiative's standards development and dissemination approach currently is not based on a solid knowledge-centric foundation, which relegates to states, school districts and teachers the responsibility of managing serious, but avoidable, implementation issues.

Recommendations for Resolving Implementation Issues

- State-level adoption of a student- and knowledge-centric common core implementation strategy; and
- Eliminate significant downstream challenges, inefficiencies and unnecessary state, district and community expenses by utilize innovative, state-of-the-art, knowledge and skills-centric management system technology to resolve state, district and classroom-level implementation issues.

Common Core State Standards Initiative Resolving State and Classroom Implementation Issues

Common Core State Standards Initiative

The Initiative was established by the Council of Chief State School Officers and the National Governor’s Association Center for Best Practices. Its initial objective is the development and broad-based implementation of a common core of state content standards in English language arts and mathematics for grades K-12.

The lead organizations are facilitating a state-led process to develop standards intended to be: “fewer, clearer, and higher; inclusive of rigorous content and skills; aligned with college and work expectations; internationally benchmarked and ready for states to adopt.”

To date, almost all governors and chief state school officers are committed to participate and implement the new standards statewide within three years. Participating states were promised that their adoption of the new ‘common core’ will enable them to:

- Articulate to parents, teachers, and the general public clear expectations for what students will know and be able to do grade-by-grade and at graduation from high school;
- Align textbooks, digital media, and curricula to the internationally benchmarked standards;
- Develop and implement an aligned assessment system to measure student performance against the common core state standards; and

The Initiative intends an ongoing state-led development process to support the continuous improvement and updating of the first and later versions of the common core standards.

State and local administrators and teachers recognize that the pending disparities between the common core standards and existing state content standards, the formal curriculum, the taught curriculum, and assessments in the day-to-day

classroom activities are significant and serious. The responsibility for dealing with these alignment issues and their inevitable achievement impacts is being delegated to individual state education agencies, school districts and teacher.

State-Level Responsibilities

Participating states will need to be prepared to support the following key efforts for their adoption and implementation of the common core state standards:

- Receive and analyze the new standards (and assessment) to determine exactly how they compare, and in particular differ, from the current standards;
- Use the comparison analysis information to incorporate the additional 15% state-specific content in the standards;
- Analyze and adjust vertical and horizontal alignment across all subjects and all tracks to finalize a new curriculum framework;
- Produce a detailed content comparison between the existing state standards and the new common core standards to advise and guide districts, teachers and vendors on the changes; and
- Manage their dissemination to districts and teachers for classroom implementation and provide ongoing support and maintenance

School District, School and Teacher Responsibilities

Districts, schools and teachers in participating states will be expected to prepare their students to meet the higher proficiency requirements defined by the common core standards. To reach this objective they will need to:

- Examine their instructional programs to ensure that classroom tasks and assignments are aligned with the common core content standards;
- Compare curriculum coverage – missing and extra content – and then update and align instructional materials.

Common Core State Standards Initiative
Resolving State and Classroom Implementation Challenges

Implementation Challenges

The successful transfer of knowledge and skills to a continuous pipeline of students is the mission of education. The state agencies, districts, schools and teachers who comprise the backbone of the nation's complex education system perform the processes needed to accomplish that mission.

Knowledge and skills are the natural common denominator that support and connect all education system processes. In an effective education system, the standards will set forth, clearly and specifically, the sequential content knowledge and skills students need to learn. Content knowledge is the unifying factor connecting policy, standards, curriculum, assessments, teaching and learning.

In a student- and knowledge-centric education system, all educational materials and processes are linked to their respective knowledge and skill item details. This alignment enables content standards to be truly teachable and measurable because the standards unambiguously identify and reference the precise knowledge and skills intended to be taught and assessed in the classroom. Systemically, this ability translates into each and every student having access to a strong academic program and a portable, customized, up-to-date individual K-12 learning plan which adds a year or more of academic progress, each and every year.

To accelerate learning gap closure and improve student achievement, the new common core state standards must:

- Clearly and unequivocally define the specific content knowledge and application skills which a student needs to master for proficiency in each subject area and grade, sequentially from one grade to the next and across the curriculum;
- Be easy to understand, communicated effectively to districts, schools and teachers and modeled through aligned, knowledge-referenced instructional curriculum, including lesson plans and unit assessments; and

- Specify grade and content-specific performance expectations that clearly articulate the unit and course/grade knowledge and skills to be measured for each performance level.

Currently, the Initiative's standards development and implementation process is neither student-centric nor knowledge-based. This lack of a knowledge-centric approach creates significant downstream implementation challenges for states, districts and teachers.

State and local administrators and teachers recognize that their task is considerably more complex than a simple replacement of standards for two subjects. States will need to know how the common core standards compare to current standards, curriculum frameworks and assessments. The adoption process also includes states aligning the new course standards vertically and horizontally into the larger integrated learning framework, which likely will result in changes in other subjects. Finally, all these changes will need to be communicated to districts and teachers who then have significant work updating their instructional materials.

Systemic Process Issues

A major challenge facing the Initiative is providing states, districts and teachers with the process support needed to efficiently and cost-effectively implement the new standards and assessments. Effective common core standards implementation requires downstream support from a unified, end-to-end management and quality control system which will efficiently and accurately integrate the standards into existing system structures and processes.

States and districts are rightfully concerned about the projected cost of aligning their current standards with the common core, revising curriculum and assessments, assisting local schools and teachers to adapt lesson plans and instruction, and dealing with student in-progress learning gaps created by the new standards.

Common Core State Standards Initiative
Resolving State and Classroom Implementation Challenges

The Student-Centric Solution

Economic forces articulated the need for more explicit common core state standards, as well as an increased appreciation of a pending disparity between the new, ‘fewer, clearer, more rigorous’ standards and existing state standards, formal curriculum, taught curriculum, and assessments.

Educators are concerned that if what ends up being taught using the new standards is not closely aligned with what is intended to be learned and assessed; students will miss the targeted learning objectives mark. These concerns are exacerbated because high-performing competitor countries already have highly aligned student-centric instructional systems which hit the learning objective mark dead center in core subject areas.

The many improvements implied by the Initiative must be viewed in context with the fact that no state has yet assured the alignment of our local instructional systems to their content standards. This lack of a truly aligned state model has consistently blocked state and school district efforts to meet student achievement objectives.

State and school district implementation of the common core state standards will be a massive and complex undertaking, involving significant cost and considerable effort by multiple teams of professionals at multiple levels.

The necessary alignment between state-defined frameworks, classroom curriculum and assessments must be done accurately. For example, implementation will require school districts and teachers to re-examine their instructional program to ensure that classroom tasks and assignment are aligned with the new learning objectives they will be expected to teach.

An innovative, student-centric solution is now available to systemically support Initiative leaders, states, districts and teachers in the implementation of the common core standards. The web-based *Aligned·By·Design* Model utilizes state-of-the-art process automation and management technology. It supports the integration of all education processes and initiatives with customized student learning features.

Universally applicable, it is a unified, knowledge-centric system that brings states, districts, and teachers together on one system, enabling them to accomplish their common mission. It is content-independent and allows the use of any materials, including existing materials, which can easily be loaded for immediate cost-efficiencies and benefits.

Empowering the comprehensive aligned instructional model, it inherently performs the processes essential for education systems to improve instructional quality, accelerate achievement progress, and increase education system efficiency and performance. The Model provides a complete, intuitive tool set that assists and enhances the performance and effectiveness of all education processes.

The system’s automated tools and quality control design enables and encourage educators to incrementally develop, and continuously update, teachable and measurable content standards. The resulting standards identify and reference the precise knowledge and skills to be taught and assessed in the classroom. (Appendix II)

Aligned·By·Design’s integral alignment capabilities ensure that content standards, curriculum and assessments are linked to and reference the identical knowledge and skill item definitions. These explicit definitions enable educators to achieve and sustain perfect alignment between standards/frameworks, classroom curriculum (units and lesson plans) and assessments as they evolve.

The system’s unique optimized data model and communications functions monitor student, classroom and school progress in real-time using its cross-sectional and longitudinal databases and dual-engine analytical capabilities to achieve continuous improvement. It automatically collects and analyses a portfolio of performance and teaching data and ‘at a glance’ provides the teacher, school, district, state and parent with the actionable feedback needed to address learning, instruction, policy and resource allocation questions.

Recommendations for Resolving Common Core State Standards Initiative Implementation Issues

Participating State and School District Recommendations

Significant research and analysis was applied to develop recommendations for achieving success with the Common Core State Standards Initiative. Questions were posed for analyses which have not been publically addressed by the Initiative with the intent to provide input and guidance with their resolution.

Guiding the recommendations was an extensive body of research on the standards-based education model and implementation practices. The research findings are definitive regarding the inherent limitations of the Initiative's accountability-focused approach to improve instructional quality or accelerate achievement progress.

The *Aligned·By·Design* Model is a ground-breaking management system developed specifically to solve education's systemic student learning challenges. A dynamic web-based application, it utilizes state-of-the-art technology to interact with and support educators to ensure predictable and sustainable education system and learning performance results.

As the Model actively supports student achievement gains, it reduces costs and eliminates repetitious manual processes, decreasing overheads and creating immediate savings of non-instructional expenses. Benefits include:

- Teachers and parents with a clear understanding of 'what is to be taught' and 'what will be assessed'
- An aligned, sequential, and coherent classroom curriculum driving instruction
- Assessments perfectly aligned with content standards and curriculum
- Student achievement gaps pinpointed and closed as they occur, eliminating gap accumulation and cutting dropout rates
- Teaching and classroom instruction issues isolated and addressed in real-time
- Instructional practices and materials analyzed to determine which work well and with what student groups

Applying the Model to the published plans of the Common Core State Standards Initiative and the logical answers to the postulated questions resulted in the following recommendations for a course of action to achieve predictable and beneficial Initiative results:

Recommendations for Resolving Implementation Issues

- State-level adoption of a student- and knowledge-centric common core implementation strategy; and
- Eliminate significant downstream challenges, inefficiencies and unnecessary state, district and community expenses by utilize innovative, state-of-the-art, knowledge and skills-centric management system technology to resolve state, district and classroom-level implementation issues.

Appendix I

Sample Research Questions

Numerous key questions related to the Common Core State Standards Initiative, its stated objectives and state and local implementation were analyzed, and the findings are reviewed in the Research Brief. The Brief assumes that the new common core standards will be accompanied by state-level assessments. Research Brief review questions, included:

1. Will the standards development and implementation processes for the new standards actually change what's happening in the classroom to drive student achievement or will assessments continue to be the primary driver?
2. What is the optimal process for the Initiative's development, benchmarking, implementation and maintenance of the common core standards?
3. What is really different about this approach from the teacher's perspective that will actually get the standards reflected in classroom curriculum?
4. What is the plan to make these common standards more usable and teachable and therefore really drive change?
5. How will current state standards be compared or aligned with these new standards so that states understand the differences and can make adjustments to their entire system?
6. How will states efficiently add the finishing 15 percent content, and how will that segment be represented in assessments?
7. How will common core standards be maintained and efficiently promulgated to states year after year?
8. Who will be available to support the standards, including content clarifications, gaps and other "user" questions, and how will answers to common questions be shared with all users?
9. Who will determine if 'students in-progress' will need re-tracking, gap filling or if they will meet the prerequisites for the new standards?
10. How will international standards and assessments be compared or aligned with these new standards? Is there a plan to do this systematically with transparency and data retention for visibility and future updates?

Appendix II

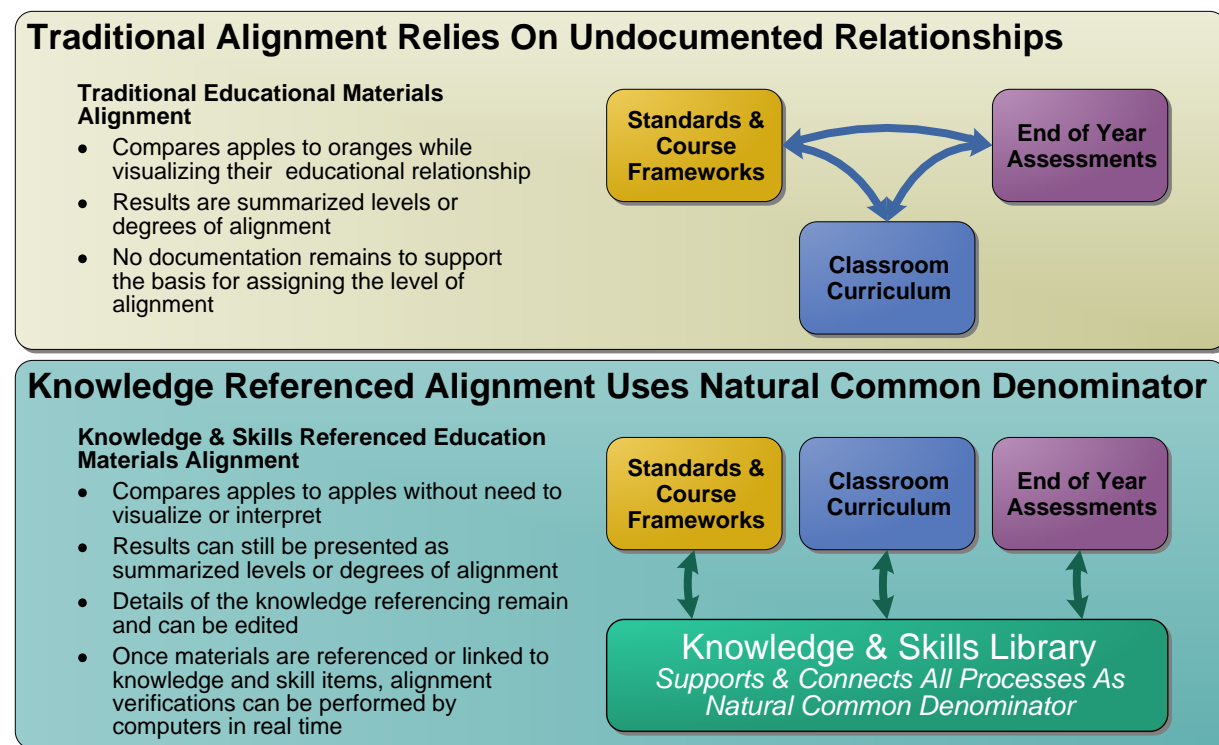
The Optimal State Standards Development Model

Aligned·By·Design Model-enabled content standards are teachable, measurable and easily benchmarked with international, state and federal standards and assessments. They are a vast improvement over current state standards and distinguished by high-definition, knowledge-referenced content which can be perfectly aligned with instructional curriculum and assessments.

The current state-level processes used to develop content standards are flawed. Virtually all state content standards require disaggregation and build out before they can be used to develop classroom curriculum. The lack of clear, knowledge-referenced content in the standards and the absence of a suggested learning sequence, present the teacher with an enormous burden and a problem because the requirements are incomplete. The result is misaligned classroom curriculum and ‘teaching to the test’ as a defensive response to high-stakes accountability.

Transforming today’s standards into teachable and measurable specifications of what students need to learn is essential, and the transformation requires participating states to adopt the knowledge-based standards development processes. The knowledge-centric *Aligned·By·Design* system processes and technology enable educators to development high-fidelity content standards that eliminate the guesswork for teachers, districts and curriculum and assessment developers. The knowledge-referenced standards promote cognitively challenging and sequenced instruction because they clearly define the rigorous, natural progression of the content knowledge and skills students need to learn.

As the figure below illustrates, the system uses discrete units of knowledge and skills to measure alignment precisely and quickly. This system capability and its automated tools enable the perfect alignment of standards, curriculum and assessments and their precise benchmarking with other standards.



Qualities of an *Aligned-By-Design* Model-Enabled High-Performance, Student-Centric Classroom

- The teacher knows *exactly* what their students need to learn for proficiency and can focus on achieving that objective as the highest learning priority
- State content standards are teachable, measurable and specified by the identical high-definition knowledge and skills-referenced detail in the state assessment
- Each and every student has access to a strong, differentiated academic program, is provided a portable, customized, up-to-date individual PreK-12 learning plan, and is adding a year or more of academic progress, each and every year
- Districts and schools have a coherent, accessible, evidence-based knowledge of what under-performing students need to accelerate their learning and the needs of under-performing students are addressed in real-time and remediated before they accumulate and become chronic learning issues
- The knowledge and skills covered by each lesson plan and instructional material is in precise alignment with, and identical to, the fine-grained content areas in the standards
- Lesson plans and instructional materials are evaluated in real-time to determine what's working and what's not
- The objectives, processes and efforts at the state, district and school levels are systemically aligned with and support high-quality instruction and student achievement goals
- A culture of compliance-based accountability has been replaced by one where ownership of results, a commitment to continuous improvement and shared accountability for delivery high-quality student-centric supports and achieving results is the norm
- Teachers are supported and monitored both for quality implementation of content and pedagogy and for the growth of their student's achievement as well as for their role in ensuring the alignment of instructional programs and support services
- District and school administrators and teacher identify the instructional practices/materials that work well and with what student groups and become effective diagnostic problem solvers and solution implementers as they collaboratively focus on improved student outcomes
- A high quality optimized data infrastructure readily and in real-time reports a range of outcome and implementation data in support of rigor and equity are at the finger-tips of the teacher and administrators, including in-depth and actionable reports on student achievement progress
- Districts and schools can determine where they have or lack the capacity to provide access to rigorous learning for all students and how they can better focus resources to that end
- Policies, management and operations are logically aligned with and evaluated by their contribution to a student-centric instructional strategy, the classroom and student achievement objectives
- Parents receive useful, real-time data on their child's achievement progress and learning gaps

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