K-12 OER COLLABORATIVE IMPLEMENTATION STUDY
FINAL REPORT

December 4, 2015

EXECUTIVE SUMMARY

The purpose of this project was to look at the adoption and implementation of K-12 core instructional materials in math and English Language Arts (ELA) and to explore business models for the successful and sustainable publishing of such open educational resource (OER) materials.

The following conclusions came of out of this research:

- The primary purchase consideration of all parties interviewed as a part of this project is product quality, especially in terms of addressing the needs of the new standards.
- The adoption process in the K-12 core curriculum market is complex and expensive to participate in.
- Marketing and sales efforts are critical in K-12. Just having a superior product, even a free one, is not enough.
- State adoptions are less important than they have been in the past and are likely to continue to decrease in importance.

> **Districts consistently reported that quality is their primary criteria for selecting a program and that cost is not a factor.**

- Even where states still have adoptions and/or control funding, there is a great deal of latitude on the part of districts.
- Price is not a significant factor in district decision making with the possible exception of when there is no money available, in which case adoptions are generally suspended.
- Districts are willing to pay for premium product additions such as customization, assessments, data gathering and analysis, and professional development, and in fact find many of these features essential to adoption.
- In addition to a high quality product, it is essential that publishers support their product through implementation support, customer support, and professional development.
- While awareness of OER in K-12 is growing, definitions of "OER" vary, and by and large, open licensing is not perceived as a significant benefit.
- A still small but growing number of districts are creating their own curriculum and using a variety of instructional materials, including OER and teacher-created resources, for that.
- There is ambivalence among K-12 leaders about various aspects of open practice.

> **OER publishers are experimenting with a variety of business models, including drawing on partnerships and revenue from product sales, to establish sustainability.**

- Sustainability is a key consideration to OER publishers and is not easy given the high development and implementation costs of K-12 core curriculum. Several OER publishers, however, have reached sustainability through the sales of complementary products.
- There is a tension for publishers between reaching sustainability and maintaining the values that underlie work in OER.

METHODOLOGY

The purpose of this project was to look at adoption and implementation processes for comprehensive K-12 core curriculum and instructional materials for math and ELA with a goal of informing OER developers and publishers in this market, including the K-12 OER Collaborative.

To achieve this goal, state and district adoption processes were researched, and interviews were conducted with state and district staff members about their current procedures and future plans. In addition, they were questioned about specific items of interest to the OER community, including cost-intensive sales and implementation support, pricing considerations, perceived benefits of OER, and receptivity to various possible marketing and positioning statements. In addition, information available on various state and district web sites was reviewed.

In all phases of this project, the work was framed specifically in the context of core curriculum in math and ELA, not in the context of educational technology.

A list of survey questions used with each group is available in Appendix 1.

A secondary goal of this project was to explore possible business models for OER developers and publishers in this market. This was pursued in part by interviewing various organizations participating in or interested in the OER market for K-12 core curriculum.

This data was then viewed in light of the experience of the author of this report and other available information to formulate the recommendations presented.

Adoption of K-12 Basal Curriculum

The adoption and purchasing process for basal curriculum in core subject areas for K-12 is complex and unique. It varies widely from state to state and even district to district, necessitating marketing and sales strategies by segment.

Overall, the states are divided into adoption and open territory states. In the approximately 20 adoption states, which include three of the five largest states, the state controls the process by issuing a "call" for curriculum to publishers with specifications, reviewing and evaluating submissions, and then approving certain submissions, from which districts can then choose the curriculum they wish to adopt. While the state acts as a gatekeeper in these states, the ultimate purchase decision is still in the hands of the each district. (See Appendix 2 for a list of adoption and open territory states and math and ELA adoption schedules where pertinent.)

In open territory states, there are no official state lists, though states may evaluate materials in an advisory capacity. Unlike adoption states, in open territories, districts generally set their own schedules for adopting curriculum.

There are some commonalities between open territory and adoption states, including the duration of the adoption cycle, which tends to be a 5-8 year cycle, and the existence of district curriculum committees, who typically make the final decision on curriculum (subject to school board approval).

General State Adoption Processes

In adoption states, the following general process is followed. First, frameworks and invitations to bid are issued. Most adoption states issue a proclamation or curriculum framework that includes the criteria for evaluating materials. There are also social content review guidelines that must be adhered to.

Publishers then make a presentation to the state and submit a bid, as well as samples for reviewers to review. In case of a technology-dependent product, the technology is often provided on loan to reviewers as well.

A specially-appointed committee of content experts then reviews the materials against content standards, social content review guidelines, and other criteria.

After the review process, there is a rigorous comment and response period, including public comments and face-to-face presentations by the publisher. After this, the state department typically makes recommendations to the state board. The state board then votes on approval and takes action.

Some states require bonds, certifications, contracts, and inventory to be kept at state depositories.

Typically a state's review process takes approximately one year from start to finish, with materials then being sold to districts the following year.
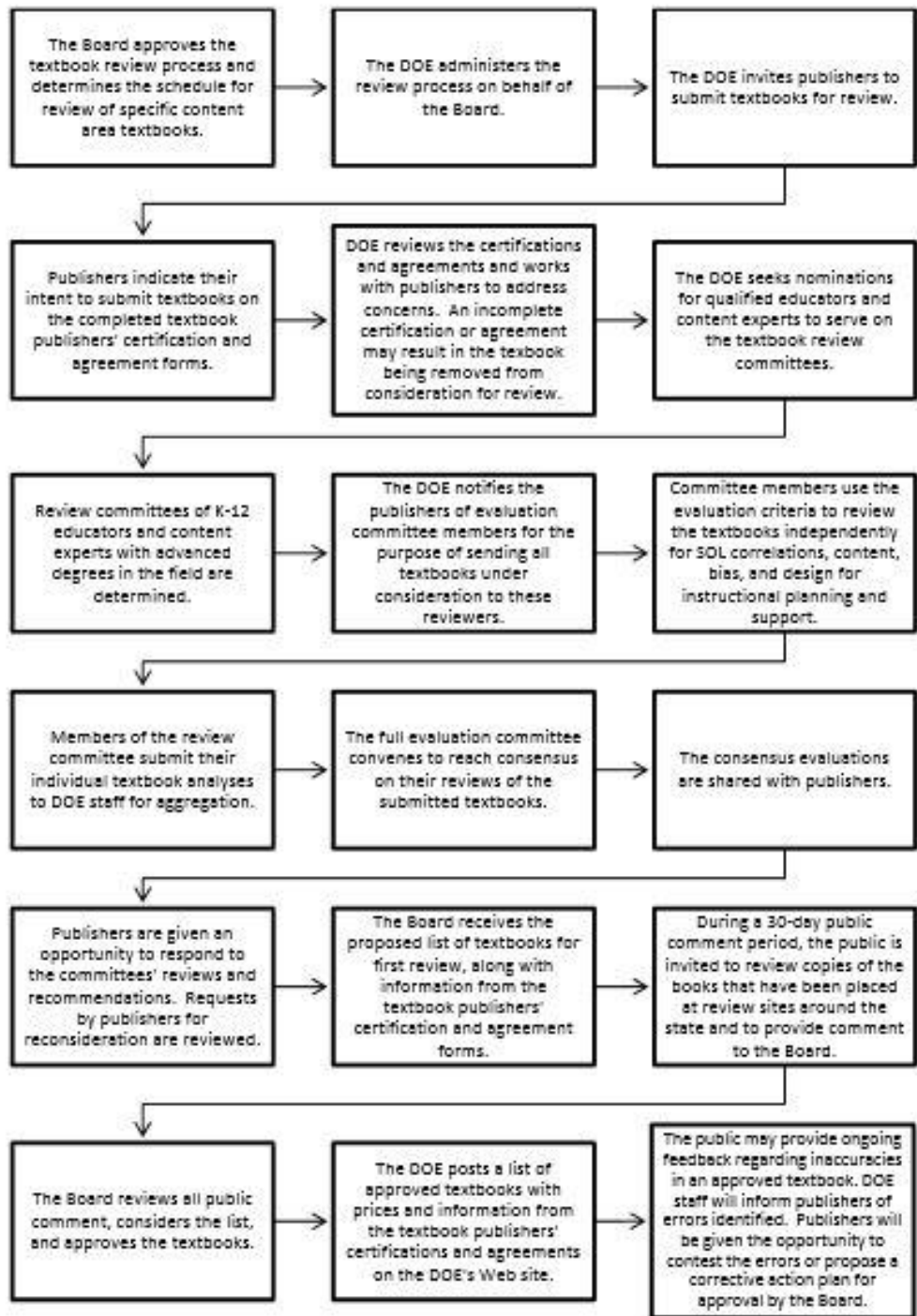
As an example, the following process is followed in California:

- Curriculum framework is issued, including the criteria for evaluating K-8 materials (grade 9-12 is locally controlled). (12 months or more before final state board action)
- Publisher's briefings are held. (Face-to-face; may be more than one)
- Invitations to submit are sent out. (Face-to-face meeting also held.)
- State reviewers are recruited. Review panels are appointed. (8-10 people; majority are classroom teachers; also includes one PhD level subject matter expert.)
- Publisher's presentations are held. (Face-to-face)
- Samples are sent to reviewers. (State suggests including hardware if tablets are required.)
- Reviews conducted. (2-3 months)
- Public review and comment meetings held.
- Deliberations with publishers conducted. (3-4 days, face-to-face)
- Instructional quality commission hearings held.
- Recommendations made to state board.
- State board takes action.

(See California Department of Education for a detailed schedule for the 2015 ELA adoption.)

California has recently begun charging publisher's fees of $5,000 per program per grade level to fund their review process.

Here is a chart of the adoption process in Virginia:

The Board approves the textbook review process and determines the schedule for review of specific content area textbooks. → The DOE administers the review process on behalf of the Board. → The DOE invites publishers to submit textbooks for review.

Publishers indicate their intent to submit textbooks on the completed textbook publishers' certification and agreement forms. → DOE reviews the certifications and agreements and works with publishers to address concerns. An incomplete certification or agreement may result in the texbook being removed from consideration for review. → The DOE seeks nominations for qualified educators and content experts to serve on the textbook review committees.

Review committees of K-12 educators and content experts with advanced degrees in the field are determined. → The DOE notifies the publishers of evaluation committee members for the purpose of sending all textbooks under consideration to these reviewers. → Committee members use the evaluation criteria to review the textbooks independently for SOL correlations, content, bias, and design for instructional planning and support.

Members of the review committee submit their individual textbook analyses to DOE staff for aggregation. → The full evaluation committee convenes to reach consensus on their reviews of the submitted textbooks. → The consensus evaluations are shared with publishers.

Publishers are given an opportunity to respond to the committees' reviews and recommendations. Requests by publishers for reconsideration are reviewed. → The Board receives the proposed list of textbooks for first review, along with information from the textbook publishers' certification and agreement forms. → During a 30-day public comment period, the public is invited to review copies of the books that have been placed at review sites around the state and to provide comment to the Board.

The Board reviews all public comment, considers the list, and approves the textbooks. → The DOE posts a list of approved textbooks with prices and information from the textbook publishers' certifications and agreements on the DOE's Web site. → The public may provide ongoing feedback regarding inaccuracies in an approved textbook. DOE staff will inform publishers of errors identified. Publishers will be given the opportunity to contest the errors or propose a corrective action plan for approval by the Board.

Source: Virginia Department of Education

General District Adoption Process

In both adoption and open states, districts are the actual purchasers and make their own decisions about what instructional materials to purchase.

In general the process for making that decision is as follows:

- Issue an RFP or document outlining specifications and goals. (Note: This is not always done.)
- Put together a list of programs to evaluate. (In adoption states, this is typically the state-approved list.)
- Obtain samples of programs.
- Form committees of content experts, generally including teachers and sometimes community members, to evaluate the materials, often using consensus-generated rubrics and criteria.
- Review materials.
- Narrow down the list to a few programs to be piloted.
- Receive professional development and pilot test the materials in actual classrooms. (Note: Piloting is not always done.)
- Survey stakeholders such as parents, students, and others.
- Reach a consensus on final selection.
- Make recommendation to board for approval.
- Board takes action.

Districts often request detailed correlations from publishers and sometimes also request research, expert reviews, and test scores from similar districts using the program.

The timeframe for this procedure varies. Some districts begin the process as much as a year and half before the materials being evaluated are to be used.

More details on this process in specific districts are discussed below under "District Perspectives."

It is worth noting that in a relatively small number of districts, there is no one curriculum that is used schoolwide. Instead, teachers are permitted to make their own individual choices. In a small number of sometimes overlapping cases, districts are choosing to create their own instructional materials, which are often a combination of teacher-created and publisher-supplied materials, mixed together to meet local needs. While the number of districts opting for this path is expected to grow, it is relatively insignificant in the broader scheme of things.

Role of Intermediate Units

In between the state and district levels, many states have intermediate units, such as county offices of education, education service centers, cooperatives, etc. (See Appendix 3 for a list of these.) In many cases, these intermediate units play a key role in both the curriculum adoption process and in professional development.

Intermediate units often house samples of core curriculum programs, and districts go to them to determine the programs they will review. Sometimes initial presentations of programs are held at intermediate units.

Intermediate units often provide professional development to districts, both pre-adoption in terms of supporting new standards and instructional practices and post-adoption in terms of implementation support.

Intermediate units are often viewed as primary marketing partners for K-12 publishers. In cases of non-traditional publishers, they could even fill a partnership role in sales and implementation support.

As a part of this project, state educational agency staff members representing 10 states were interviewed. These staff members were in charge of instructional materials, standards, or academic content for each state. Five of these states were members of the K-12 OER Collaborative, and five were not. Eight of the 10 states interviewed were adoption states, and eight of the 10 were Common Core states. The states represented a range of geographic locations, as well as large to small states.

Of those interviewed, some had a strong awareness of OER (especially Collaborative members), and others had no awareness.

A listing of all states along with their adoption/open status and dates of upcoming math and ELA adoptions is available in Appendix 2.

State Adoption Processes

The adoption states interviewed generally described a process that begins with the issuance of state standards and/or frameworks, criteria for evaluation, and a call for submissions, and then proceeds with the recruitment of reviewers, publisher presentations, reviews of samples, public comment, deliberation, commission hearings, recommendations to the state board, and final decisions.

Nevada is unique in that it reviews materials on a rotating basis as requested by district. As such, there is no state call. In addition, several states that had previously been categorized as "adoption" states have shifted their procedures significantly. For example, Indiana is no longer doing curriculum review except for K-5 reading, which they still review because of unique issues related to scope and sequence coherence.

Local control was a strong theme even in adoption states. While most adoption states interviewed had policies that did not require that districts buy from the state-approved list, they generally felt that most schools did so.

Some states like Louisiana, specifically mention OER in their publisher submission guidelines.

Phase One –Initial Screening

Content providers are invited to submit both proprietary and Open Educational Resource (OER)[1] materials that are fully aligned to Louisiana's K-12 English language arts, mathematics, social studies standards or the Louisiana Birth to Five Early Learning and Development standards and that meet the following initial pre-screening criteria:

When asked about OER, Dr. Jackie Bobbett of the Louisiana Department of Education's Office of Academic Content said, "We don't want to focus on OER as a separate area. Like accessibility to instructional materials, these aspects become part of what we provide." Though their web site is one of the few to mention "both proprietary and Open Educational Resource (OER) materials" in their review procedures, Bobbett said that state-reviewed OER "are not treated differently from other instructional materials."

Several states interviewed talked about a gradual loosening of the adoption process at the state level and expressed a feeling that this would continue. Several speculated that with the rapid changes in curriculum and more movement toward local control, state adoptions may be gradually phased out or changed to another format, such as perhaps a more advisory clearinghouse approach. Some also talked about doing more frequent interim reviews if funding is available.

The frequency of curriculum calls varies by states and sometimes with the availability of funding. (Notably, California did not have textbook adoptions for several years, due to lack of funds, only recently resuming.) While most adoptions states have a cycle of 5-8 years, Louisiana recently shifted to a process of yearly reviews. They also conduct all reviews online and only look at pricing for programs that pass the review.

Some states now charge publishers a fee to enter their state adoption review. The highest of these was California at $5,000/program/grade level. In Florida, publishers pay $1,000/title/grade level.

With regards to sampling, publishers are required to provide a specified number of samples for review. With regards to electronic materials, some states, such as California, suggest that hardware be supplied to reviewers for tablet-based products.

In larger states, publisher presentations to the review panel are made face-to-face. Louisiana has shifted to a video presentation format.

Publishers are also generally in attendance at public deliberations, which can last several days.

Funding

Nearly all the states interviewed said that their districts are funded through a per-pupil allocation that can be used for anything. Most states indicated that there is no specific funding for textbooks or instructional materials. Again, the idea of local control was emphasized in this.

One exception was Florida, which has more strict budgets, allocations, and guidelines for instructional materials funding. If all content standards have been covered and there is leftover money, it can only be used for hardware. In addition, 50% of instructional materials funding can be used for off-list materials, and in the upcoming year, there will be a requirement that 50% of instructional materials funding must be used for digital materials.

Some states like California have had special one-time funding specifically for Common Core (CCSS) implementation. Idaho also reported having specific instructional materials funding for the last two years.

In some cases, states reported that the change to funding all being put in one general operating fund has resulted in districts reducing expenditures on instructional materials. When asked questions about districts' flexibility to reallocate instructional materials funding, most states said that districts already have that flexibility. As a result, it was not clear that potential funding reallocation would be perceived as a benefit of OER.

Current Adoption Status

While most adoption states moving to CCSS or equivalent new standards have already done adoptions for corresponding new materials in math and ELA (an exception being California, who is currently adopting ELA for the first time under CCSS), those interviewed said they didn't really know if their districts had implemented new curriculum yet or not.

Distribution

A few states still require the use of textbook depositories. In Florida, this is a requirement even for OER. New legislation in Louisiana will also require depositories. It was not clear what the cost of this might be. While it has typically been a percentage of sales, some other cost structure would need to be developed for free materials.

Important Considerations to Districts

As with all groups interviewed for this project, **the states interviewed emphasized the importance of the instructional shifts required by the new standards and instructional materials that support those shifts**. Alignment to the standards was consistently said to be the most important consideration.

Professional development was also mentioned as a very important element, and intermediate agencies were mentioned as an important source of professional development.

Ease of use and ease of implementation was cited as being important, particularly with regard to OER. Some mentioned the desirability of implementation guides.

A couple of states mentioned alignment to assessments with one saying that districts "don't care about the Common Core, just the assessment." (It is worth noting that assessments vary across the country and to not always align perfectly to the standards.)

Other items of importance to districts that were mentioned included: accessibility to special populations (ELL/ELD, SPED, enrichment, etc.), cost, research basis, and benchmark assessments.

Opinions about OER

Most states felt that the low or no cost aspect of OER would be of great interest to districts. (As discussed below, district interview responses were not consistent with this.)

Benefits of OER that were cited included: cost, flexibility, innovativeness, currency, ability to raise the professionalism of teachers, collaboration, and professional learning.

Possible drawbacks mentioned were maintenance issues, print costs, Internet requirements, novelty to "techies" (rather than a serious educational tool), and perception of "free" as low quality.

There were mixed feelings about the idea of curriculum customization. While some felt that this was an advantage and would advance the professionalism of teachers, others had concerns about it.

A couple state representatives were either not familiar with OER at all or felt that it wouldn't fit into their instructional materials adoption system. At the other extreme, a couple states reported that their schools are becoming comfortable with customizing their curriculum, using a mix of resources (including OER), and are moving away from textbook use.

"Our districts have heard so much about copyright infringement, and it's posted on top of every copier that they can only make so many copies for classroom use. For open resources, I'd like to see a simple and clear statement that it's ok to copy and reuse it, beyond the normal Creative Commons license."

Julie Joslin, Ed.D., Section Chief / K-12 English Language Arts, North Carolina Department of Public Instruction

When asked which districts in their states might be most interested in OER, answers varied. One consistent response was that districts moving to one-to-one and blended learning would be most interested. One interviewee said that OER would be of more interest to educational technology staff than to curriculum. It was also suggested that OER product might be more easily adopted by smaller districts.

When asked about the idea of providing OER product at a reduced cost option (rather than or in addition to being distributed "free"), there were mixed reactions. Some said that there might be feelings of being misled or perceptions of conflict of interest. Others said "nothing is free" and that there would be no problem with this (and were already familiar with this model through Amplify's work selling Core Knowledge Foundation's EngageNY materials).

Reactions to the Collaborative

States who are members of the K-12 OER Collaborative were asked what they were most excited about and what concerned them most about this work.

Items of most interest included: quality focus, state participation, momentum, good people with good intentions, and teacher voice.

Items of potential concern were: sustainability, timeframe, possible reduced scope, possible influence of companies and other national organizations, credibility, where this fits in, positioning ("Is this a state curriculum?"), level of state influence, and unpredictability.

Some states mentioned a desire to help promote and assist with the product, while others expressed a need to keep an arms-length relationship.

As a part of this project, nine public districts in six states were interviewed. These districts represented a mix of demographics, including small and large and urban and rural. The person interviewed was generally the assistant superintendent of curriculum and instruction.

Many more districts were contacted to participate in this survey than were interviewed. Unlike states, districts were less likely to respond to the request for an interview. This could be the result of busy schedules or lower interest or awareness. Despite the fact that the introduction centered on math and ELA core curriculum, some recipients forwarded the request to their educational technology staff members. This likely shows an association of OER with ed tech by some districts. (Note: No interviews were done with educational technology staff members.)

Because some of the districts interviewed were recommended by states in the K-12 OER Collaborative (the Collaborative agreed not to interview schools in their member states without state permission and recommendations were sought), there is a slight bias toward districts already knowledgeable about OER.

District Adoption Processes

Each district interviewed described in detail their process for reviewing and adopting core curriculum materials.

For districts in adoption states, this generally begins with a review of the list of state-adopted materials. In both adoption and non-adoption states, intermediate educational agencies such as county offices or regional service centers were mentioned as a primary source of information and professional development on instructional materials to be considered. (A list of such agencies is available in Appendix 3.)

The general process for district adoptions is given above in "General District Adoption Processes." (Note: One small rural district in this group said that their teachers have flexibility to use the materials they choose, and that there is not one district-adopted program. All the others had a centralized process.)

Without exception, quality and support for the new standards was emphasized as the primary criteria for program selection, and many concrete examples were given to support that. In general, districts are getting more sophisticated in how they evaluate the quality of materials, including the development of specific rubrics and evaluation criteria and in some cases, detailed RFPs and specifications for what they want to adopt.

While many adoption states do not currently require purchase from the state list, most districts still use this as an important criterion.

After the initial list of programs to be evaluated is put together, a district review committee is assembled. The size varies with the size of the district, but typically is around 30 people. At this initial stage of evaluation, face-to-face presentations are often but not always done by the publishers.

At this stage, sets of complete samples of the programs being considered are supplied to the district for each committee member. These are often quite extensive. When questioned about sampling of digital products, most seemed to review the products in a print format. One said that district computers were used for digital review of web-based products, but that "apps were problematic."

Committees typically review the materials according to various district criteria (including IMET, MC^2, various state tools, etc. – see http://cdaschools.org/page/5951 for one district's tools and process), discuss their evaluation with each other, and then narrow the list to a smaller number of programs to look at in more depth, which often involves piloting the programs in actual classrooms.

Extensive free sample packages from commercial publishers, like these provided to a small rural school with only 100 students, have become the norm.

Of the districts surveyed, the majority said they pilot multiple products (typically two or three programs) as a part of evaluating them. Pilots are typically done across multiple schools and classrooms and are conducted for an average of two to three months. Pilots are often preceded by one or two days of face-to-face professional development by the publishers. (One district mentioned paying an OER publisher for training that was done pre-adoption.) The pilots generally follow strict "no comment" rules after that, whereby the publishers cannot communicate directly with teachers, though there is an expectation of support during the pilot period.

Some districts also do public surveys or have public comment periods during this stage. In some districts, the publisher is asked to respond to specific questions at this point.

In addition to piloting, a few districts mentioned a desire to be able to visit or talk to districts who have already used the program. The availability of formal research data on program effectiveness was not generally mentioned, though publisher partnerships with universities or non-profit groups were viewed favorably.

After these various levels of review, the adoption committee comes to a consensus about a selection and makes a recommendation to the board. Typically that recommendation is accepted and implemented, though in a small number of cases, school boards have overruled committee recommendations.

Important Considerations in Adoption

Support for the standards and shifts in instructional practice was overwhelming cited as the main consideration in selecting a curriculum.

When asked about price as a decision factor, districts said repeatedly that this is not a consideration. Most said that pricing is not seen by the adoption committee or sometimes even requested until just before the board decision. A few people said that while the price had to be something the district could afford, this was almost never an issue.

Regarding professional development (PD), districts reported that while this was an essential component, they were skeptical of publisher-supplied PD, which often amounted to product training. Several mentioned supplementing this with their own PD or that provided by others, such as intermediate agencies or the content developers. The quality of the trainer was cited often as being critical. A few districts mentioned that while PD is often included in publishers' instructional materials pricing, they budget it separately as well.

Other components mentioned as being important included interventions (for ELL, SPED, enrichment, and above- and below-grade level students, including bilingual materials), differentiation strategies, assessment (and related data collection and evaluation tools), ancillary materials, extensive teachers support including detailed teacher guides, and rich technology components.

Two other considerations mentioned were **ease of use and support**. The issue of ease of use was brought up in the context of the new standards as well as in terms of program logistics, especially as it relates to OER. While some programs were said to be exemplary in terms of instructional approach and support for the new standards, they were also felt to be too difficult for teachers to implement. There was a feeling that something too new or too different was an obstacle to successful implementation, despite its quality and innovativeness. Others mentioned the need for clean, simple organization and an approach that teachers will accept.

> **Districts mentioned the following components as being essential in core instructional materials:**
>
> - **interventions and supports for ELL, SPED, enrichment, above- and below-grade level students, etc.**
> - **differentiation strategies**
> - **assessment (and related data collection and evaluation tools)**
> - **ancillary materials**
> - **extensive teachers support, including detailed teacher guides**
> - **rich technology components**
> - **professional development**
> - **customer support**

In terms of OER, programs that required districts or teachers to print their own materials were viewed negatively. None of the districts interviewed are at a one-to-one student-to-computer ratio, and so print copies are a necessity. One district also mentioned this as a cost issue, citing a district who said that the print costs of one OER program exceeded the price of a commercial product. Overall, though, it was the time and logistics rather than the cost that were negatives.

Availability of support and customer service provided by the publisher were mentioned as being essential. One district said that the pilot was a good time to evaluate this and that they could not adopt materials that were not supported. This was mentioned as a concern with "free" products.

Adoption Status and Future Needs

In terms of current curriculum adoption status, most districts reported having already adopted new curriculum for the Common Core, though some also said that they have waited or are currently in the process of adopting. In particular, California as a state has not done a recent ELA adoption, which is expected soon.

Generally, math adoptions seem to have been done earlier than ELA ones due to the more significant changes in the new math standards.

While those interviewed loudly expressed the feeling that the new standards required new instructional strategies and materials, only a few said that materials generally available did not provide this. While this was felt to be the case earlier, many felt that the quality of publisher materials has improved over the last year or so.

Attitudes toward OER

Of the districts surveyed, the majority were familiar with OER, many through EngageNY. Most were not familiar with the K-12 OER Collaborative but expressed an interest.

While probing awareness levels or accurate definitions of OER was not a primary objective of this project, it became apparent that many interviewees' definitions of OER were not accurate. Several described OER projects they were familiar with that, while free, do not carry an open license.

Several district people interviewed had specific experiences with OER, including EngageNY and the Mathematics Visions Project.

In particular, the West Ada Joint School District in Idaho has used open licensed instructional resources, both as comprehensive course materials and as components that their teachers have adapted and combined with others to meet their needs.

> **"After examining the new standards and released assessment items, OER was the only instructional resource we could find that met our needs."**
>
> **Joseph Kelly, West Ada Joint School District, Idaho**

Other districts, including several in California, were familiar with OER through the EngageNY project. It is interesting to note that this curriculum was submitted, but not state adopted, in the recent California math adoption. When districts in California were questioned about whether they

would consider materials that were not state listed, answers varied, with some saying that they would and did in fact review EngageNY materials, and others saying that they limited their review to state-listed programs.

While many found the content of EngageNY to be very strong, the issues of having to have teachers do so much copying (printing) of the materials, as well as the lack of professional development, were cited as reasons that EngageNY was not adopted. The lack of an intervention component was also mentioned.

According to Melissa Dutra, Instructional Superintendent of Curriculum and Instruction of Fresno Unified School District in California, OER programs like EngageNY may be viewed more as supplemental materials rather than core curriculum, because they are not comprehensive. Some components that were mentioned as being critical and sometimes missing were online access for both student and teacher resources, adaptive support, differentiated resources (including strategies for special populations, materials in Spanish, materials for students who are above and below grade level, and enrichment materials), manipulatives, and teacher guides that describe in detail how to teach the materials, common errors and how to address them, and other supports.

When asked specifically about the benefits of being able to customize instructional materials, reactions were mixed. While more progressive educators expressed an interest in this, they also questioned the feasibility of it. Some said that teachers are not enthusiastic about doing this, while others said that the high variability of the quality of their teachers made this problematic. Several expressed a concern about compromising the quality of materials by customizing them. One interviewee said that it would be valuable if publishers could vet the quality and fidelity of district customized versions of materials. In one case, a district who has clearly embraced OER said that they had made this a part of their professional learning activities and they have found customization to empower their teachers and to make the curriculum more relevant.

When talking about free or low cost OER programs, some mentioned a corresponding concern about sustainability and/or quality.

There was very little interest expressed in OER merely because it was free. Several interviewees said that if a program was free but didn't work, it was a waste of their time. When asked if schools would be willing to pay extra for specialized components such as professional development, print, assessment, etc., the response was uniformly positive. In fact, some expressed a preference for a packaged product sold by a publisher.

When asked about budget structures and specifically how savings on instructional materials might be redirected, answers were murky. Some said that this information was only reviewed or available at the superintendent or board level. No one talked about this as a factor that might influence adoption.

Product Positioning Statements

As a part of these interviews, districts were asked to rate a number of product descriptors on a scale of 1 to 5, with 1 being of little interest or appeal and 5 being of very high interest or appeal.

The purpose of this was to evaluate short product positioning statements for OER curriculum products. When possible, no clarification or explanations were made. (It is worth noting that participants were most likely to express confusion about what "open-licensed" and "blended" meant.)

Other comments of interest included that while "blended" may not be important now, it is likely to become more so in the future. "Uniquely empowering teachers to personalized learning" was felt to be a "dual edged sword."

The average response to each descriptor, sorted with the most appealing at the top, is as follows:

Descriptor	Avg. rating
High-quality	5.00
Specifically designed for new state standards	4.36
Educator-vetted	4.29
Uniquely empowering teachers to personalize learning	4.17
Innovative	4.07
Blended	3.57
Open-licensed	3.36
Free	3.29
Greatly reduced cost	3.00

As a part of this project, seven organizations involved in developing and/or publishing OER materials were interviewed. Five of these were non-profit organizations, and two were private companies. Four of the seven were involved in some way with the EngageNY project. One organization works in higher education as well as K-12.

The size and age of these organizations varied as well, with some being quite new and having a small core group of employees and others having been in business for over 20 years and having staffs of over 150 employees.

It is worth noting that these organizations span a range of missions. At least one views themselves primarily as a developer with little interest in doing distribution directly. Several are both developers and publishers, providing a range of distribution and implementation services, directly and through partnerships. One has a larger focus on creating and running schools, of which curriculum is a part.

The products that these organizations develop and/or distribute span a range from traditional print materials to entry-level digital materials to fully interactive digital materials. All but one are currently publishing some educational materials under a Creative Commons license. All of those interviewed also publish some materials under traditional "all rights reserved" copyright.

Important Product Considerations

As with other groups interviewed for this project, quality was often mentioned as the primary consideration in adoption decisions.

Many believe that the recent upsurge in interest around K-12 OER arose because the mainstream publishers were slow to respond to the changes required by new standards. In talking about this, Judson Odell, CEO of Odell Education said, "In K-12, the recent interest in the OER movement grew out of the need for high quality, but not necessarily free, instructional materials. The issue was alignment, not cost, as initially, commercially published products were often stamped 'Common Core aligned' but really weren't."

It remains to be seen how the demand for OER will be affected as commercial publishers begin to release programs that address the new standards at a higher quality level.

A point was also raised about the nature of quality and how publishers demonstrate that. Ahrash Bissell, Manager for NROC said, "We need real efficacy studies. What's important is impacting learning, not OER for OER's sake."

Beyond quality, several other important product features were mentioned. For most of those interviewed and especially those providing more traditional instructional materials, print was said to be essential, for schools as well as parents. It was commonly agreed upon that schools do not want to invest in the resources to manage this themselves. Some publishers are delivering

print to customers through partnerships, either with more mainstream publishers or through print shops.

Professional development was also discussed as an important product component, though several said that they had not yet found a good model for delivering it. While there was a sense that this could be a bigger business for several of these organizations, it has not developed as such for many of them. Professional development is currently being done both face-to-face and online, and the demand is very high.

Customized versions of products and digital services to deliver useful data back to districts are also valued by customers. In the case of data management, there are complex legal and privacy considerations to be made.

Other important components that are often not being offered as a part of OER packages now but which could be developed in the future included assessments, additional ancillaries, fancier packaging, additional video, implementation guides, coaching, account management, data tracking and analysis, and integration.

The need for ADA compliance was also mentioned as an important consideration.

School Attitudes toward OER

Another topic of discussion was whether schools are aware that certain products are OER and if so, what their perceptions of the benefits of OER are.

Overall, interviewees said that **most customers aren't aware of OER or aren't sure what OER is**. Districts are looking for programs that meet their learning goals and aren't necessarily looking for materials that are free or modifiable. Many who are using OER may not even be using the free downloads, but instead commercially packaged versions.

Some more cutting-edge customers may be aware of OER, and certainly there are some that see its value in terms of openness, but this is not the majority of users.

"As a rule, it doesn't even come up," says NROC's Bissell. "We often use the term 'open' and describe the product as being without constraints of any kind, instead of labeling it as OER."

Bissell goes on to say that while some audiences resonate with the OER positioning, the motivations are almost always financial, not pedagogical. (It is worth noting here that NROC's customers include institutions of higher education.) While he believes the benefits of OER will eventually come to be realized, it's going to take considerable time and effort to accomplish that.

Those interviewed were asked about the positioning of OER as "free." There was a common concern that **"free" signals low quality in the minds of customers**.

Several also talked about the high cost of developing quality K-12 materials and the need to recoup that cost, as well as to establish value in the minds of consumers. The fact that a quality implementation of any curriculum is not truly "free" was mentioned repeatedly.

For some who are offering both free and commercial versions of their products, the free version is seen as a marketing tool for the more full-featured packaged version that is sold. The communications messaging around this can be complex, and it is important to be upfront and transparent about what is being offered.

The Core Knowledge Foundation, who developed product for EngageNY and also has commercially packaged products for sale, has chosen the language "free download" to distinguish what is available free of charge from the full program that can be purchased.

In terms of the ability of OER materials to be modified, interviewees said that this is not a feature schools are looking for, and some indicated that it is a negative.

Marketing and Sales

The organizations interviewed have a variety of marketing and sales strategies. Most have a small number of sales and marketing staff members and rely on web-based marketing, as well as trade shows. Those that have been involved in EngageNY have had strong demand from that association and have experienced a volume of incoming requests as a result.

Most of those interviewed have not pursued state adoptions, which are typically expensive to compete in and require insider expertise. Exceptions include the Great Minds materials (Eureka Math) which have been adopted in Tennessee and Louisiana and the Core Knowledge Foundation materials (as submitted by Amplify Inc.) which were adopted in Louisiana.

Some interviewed have participated in district adoptions successfully, most often with a commercially packaged version of their OER product. The extensive work required to submit to state and district adoptions and the value of previous experience and personal connections was discussed.

With regard to competing with larger mainstream publishers, some interviewed felt that they were already competing, while others didn't think that direct competition would be successful. Some mentioned the many "bells and whistles" that are a part of commercial products which are difficult for OER publishers to rival.

While most hope for a change in the existing system of adoption, which is difficult to compete in, changing the existing system is acknowledged to be a significant challenge.

Like many, EL Education (formerly known as Expeditionary Learning) President Scott Hartl is interested in shifting the model through which districts adopt curriculum. He says, "Flip

> **"The formal adoption process is a vestige of when you had paper-based books or content behind a pay wall. Open and fully digital curriculum will make that obsolete."**
>
> **Eric Westendorf, CEO, LearnZillion**

the procurement model and give free access to the curriculum and use the freed up resources to invest in your people and invest in capacity change."

While this has been the vision of OER, there is a question of whether schools can or will shift toward this and whether the resulting savings will be reinvested in this way. Hartl says, "This value proposition only works if you have the whole package," that is, if the school buys into a larger system of open teaching and learning, with the requisite professional learning and support. While EL Education's business is unique in that it operates whole schools, others who only publish curriculum may find this harder to accomplish.

Lessons from EngageNY

Four of the organizations interviewed were a part of the EngageNY project, and they gained considerable experience with OER adoption and implementation through that. Overall, publishers were happy with their participation and felt that it gave them a chance to develop high quality curriculum that could have been challenging to fund otherwise. In addition, EngageNY unquestionably raised the profile and awareness of OER in K-12 schools nationwide.

The most common observation regarding EngageNY was the challenge of not knowing who is using the program. Because the program is freely downloadable with no registration, there are download numbers available without related information on who was downloading, which could be individual users, whole districts, or curious parents or community members. There is no real data on how many actual schools are using the program. In addition, there is no way to follow up with those users on implementation.

There is a sense, but again, no hard data, that the EngageNY materials are being used to a significant extent outside of New York, especially in California and Louisiana.

"One frustration with OER use is the metric of downloads," said Linda Bevilacqua, President of the Core Knowledge Foundation, publisher of the CKLA curriculum, portions of which are openly licensed as a part of EngageNY. "The figure of downloads is hazy because you don't know who's downloading or how they're using it – one download might be printed and copied for a hundred teachers. We know that downloads are the tip of the iceberg as we hear stories of great use cases, but it's hard to raise more funding without hard data."

Similarly, districts using EngageNY have reported a frustration with being unable to contact anyone for implementation support or questions on the program, which for the most part was not a funded part of the project.

It is not clear how to remedy this and remain a completely open program, since requiring registration would compromise the openness, but this is an obvious frustration. Perhaps a voluntary registration with different levels of information given and some incentive for doing so would be one approach.

Because of the way in which it has been distributed, there is a sense that EngageNY has been implemented in a lower fidelity manner than might be desired.

The EngageNY project offered EL Education the opportunity further develop and open license portions of their curriculum, leading to broader distribution. This had both pros and cons. As President Scott Hartl says, this low-contact distribution of curriculum absent their full model of implementation can lead to "highly variable practice and a dilution of the benefits of the program, resulting in lower average achievement." However, they also recognize that this led to more extensive distribution of their curriculum and hopefully more exposure for OER and open practice. EL Education is investing heavily in high quality research, including a federally funded i3 project, to document the impact for students and teachers when their OER curriculum is implemented fully and paired with high quality professional development support.

Like any curriculum, and especially because it is a challenging one to implement, effectiveness of the program can be highly variable. The idea of downloading a curriculum and using it without specific professional development, implementation guidance, or support would not be expected to lead to exemplary results, yet in many cases, this was how EngageNY was rolled out. Some publishers have taken it upon themselves to come up with an alternative to that by offering a more complete packaged offering. And while it is up to the consumer to decide how to implement a curriculum they select, future core OER offerings should seek to make more optimal implementation paths available and as easy as possible for districts.

Lack of professional development was also a complaint of early EngageNY users, though this has since been addressed to some degree by the state of New York, by other states, by publishers, and by local intermediate units and districts. While free online professional development materials were rolled out by the state in a later stage of EngageNY, there is a sense that they are underused. This could be because of lack of awareness among districts, as well as a lack of anyone leading the charge in implementation.

Business Models and Sustainability

The organizations interviewed for this project have a variety of current business models, as well a range of future plans. Most currently rely on some combination of philanthropic support and operating revenue from other sources.

A few organizations interviewed reported receiving less than a third of their operating revenue from foundations grants or other philanthropy, which is a measure of long-term sustainability. (Note: Not all interviewees provided detailed information on this.)

EL Education, formerly known as Expeditionary Learning, is a 23 year old non-profit with a unique and sustainable model. EL Education operates a whole school model used in 165 schools, creates instructional resources, and partners with districts and charter management organizations to provide comprehensive professional development support. The majority of their revenues come from fees from those schools and districts, with the rest of their revenue coming from philanthropic and government grants. Curriculum is only one part of this model, distinguishing

EL from most other OER developers and publishers.

NROC has followed a model of selling memberships to their program, but Ahrash Bissell points out that this membership "isn't access to a product." When selling a membership model, publishers have to answer the question of what value customers are getting for their membership, and for NROC, it is a package of benefits that includes access to student data and customized versions of the product. NROC sells its memberships on a per-student per-year basis. After many years under this model, they are close to operational breakeven with membership revenue and believe they will get to sustainability. New product development though is still funded by grants.

The Core Knowledge Foundation has developed a partnership with commercial publisher Amplify, granting them exclusive rights to sell a packaged version of their CKLA curriculum. President Linda Bevilacqua says it is truly a win-win partnership. "As a non-profit educational foundation, we want wide dissemination of our product. Giving away a free download on EngageNY as well as having a for-profit publisher who distributes a glossy, packaged version of it, maximizes the dissemination. And as a for-profit publisher, Amplify benefits from the wide exposure that the OER version receives." Furthermore, while the free version of CKLA on EngageNY is only for preschool-grade 2, Amplify provided funding that has allowed the Foundation to develop materials for grades 3-5, portions of which are also available for free download on the Foundation's website. While the free version provided through EngageNY was great for getting the word out, Bevilacqua suspects that most districts using the curriculum on a large-scale basis have purchased it through Amplify, since trying to print and package such a comprehensive program would be quite an undertaking for a district.

Another publisher who developed materials for EngageNY, Odell Education, had an initial plan to focus on high quality, to develop credibility through their work in OER, and then to expand. They currently also provide professional development and assessment design, but believe that their future growth and sustainability may come through a dual line of OER and proprietary curriculum products. "We will always make available free, high quality materials as well, but this is a large development effort, and that has to be paid for somehow. A commercial product that is a combination of derivative and complementary content is a likely way to do that," according to Judson Odell.

In talking about possible business models, many mentioned a Red Hat style model of selling services bundled with the product. Likely services to bundle with a K-12 product would include print, content customization, reformatting of content (e.g. for mobile services or specific content management systems), student data capture and analysis, professional development, coaching, professional learning communities, and support.

This model is not without challenges though. Bissell of NROC says, "I think a services model can work, but it didn't work for NROC. There wasn't enough perceived value in collaboration or research; what people see value in is PRODUCT."

Because many OER organizations are relatively small, compared to large commercial publishers, **partnerships are a likely avenue to achieve goals of scale**. Some, like the Core Knowledge Foundation, are successfully pursuing that strategy.

There are a wide variety of partnerships that might be pursued, such as with commercial publishers, value added resellers, hardware companies, software and media distributors, and public agencies, such as states, intermediate units, and even districts.

While many are looking to value-added sales models and partners to distribute their products, there are challenges to finding the right partners. Large publishers have, by and large, not been interested in forming such partnerships, both for reasons of competitiveness and revenue potential. While smaller publishers may be more likely partners, some smaller or medium publishers who might have been amenable have been purchased by larger groups. Value added resellers and large hardware and software distributors lack the deep knowledge of curriculum and implementation in K-12. Public agencies may feel a conflict of interest and would likely face challenges from commercial publishers and possibly the public.

> **Partnerships present opportunities, but also challenges, not the least of which is the possibility of OER movement becoming just another branch of commercial publishing and of not living up the core mission it originally espoused.**

Regarding this as well as other monetization strategies, Scott Hartl asks the important question "How can we do this is a way that isn't toxic to our core values and mission?" This is particularly relevant to products like EL's that are strongly tied to a certain philosophy of learning and accompanying values. Clearly, choosing appropriate partners and maintaining some degree of control over how the curriculum is marketed and implemented can be an important consideration for OER publishers. And with a limited number of partner choices, this can be challenging.

It is worth noting that in talking with districts about non-profit programs that had been taken on by large curriculum publishers, there was a feeling that the quality had sometimes suffered as a result.

As OER organizations look to new business models and strive for sustainability, the core challenge may be how to do that while not becoming just another big commercial publisher.

There is a further discussion of various business models based on the author's experience and research presented in Appendix 4.

Based on the information gathered in this project, the following recommendations are suggested to organizations publishing openly licensed core curriculum for K-12 schools.

Product Considerations
- Focus on product quality as a primary consideration, particularly in terms of the ability of the product to address new standards.
- At a minimum, offer a grade band of product in one subject area (e.g. middle school math or high school ELA). In considering which areas to tackle, consider market demand (currently math is in great demand due to bigger shifts in the standards; however that may change over time) and cost of sales (the elementary market, especially in ELA, is the most expensive to compete in).
- Monitor new developments in commercially published materials in order to compete favorably by addressing deficiencies.
- In addition to basic student and teacher resources, make sure to include intervention and differentiation strategies for special populations, such as ELL, SPED, enrichment, and above- and below-grade level students.
- Offer both print and digital versions of the product. Don't require districts to do their own print versions or to customize for their technology platform.
- Consider ease of use and clarity of approach. Focus test and pilot at various stages of development to ensure that products will be well-received by teachers.
- Include strong implementation support, such as implementation guides, online professional learning communities, and phone support.
- Offer high quality professional development in a variety of formats.
- Consider offering a packaged product with other "premium" enhancements, such as print materials, additional ancillary components, assessments, product customization, data capture and analysis, and face-to-face professional development, on a fee basis.

Positioning
- Focus on quality and unique suitability for new standards in the product's positioning.
- Emphasize the instructional priorities of math and ELA content over that of educational technology.
- Don't focus on blended, OER/open licensing, or free or greatly reduced cost in the primary positioning. (Of course, these can be drawn upon as appropriate depending on the audience.)
- Consider emphasizing aspects of the product that address ease of use in implementation.

Marketing and Sales
- Set specific goals for market penetration.
- Target and focus on states and districts that are likely to be most amenable to the product. For states, this includes California, Oregon, Washington, Idaho, Utah, and Louisiana. In terms of districts, small to medium districts and ones that have embraced a one-to-one model are the best candidates for adoption.

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- Strategically plan to submit to a limited number of state adoptions that have the highest adoption potential for the product, coupled with a relatively low cost to compete, and budget accordingly for the required sampling and face-to-face presentations.
- Budget for district adoption submissions, including extensive sampling, face-to-face presentations, and pilot support.
- Plan to attend major content area conferences to build awareness for the product.
- Plan staffing adequately to allow for sales, marketing, proposal support, and pilot support. While some of this can be done through partner organizations, some will be best done directly. In addition, direct sales of premium products will maximize revenue, leading to more sustainability.
- Develop a way to track users and use cases, such as a voluntary registration process with associated incentives.

Implementation
- Include implementation instructions with core materials, including detailed teacher materials and implementation guides.
- Offer a variety of both free and fee-based implementation support and professional development, including a toll-free support line, videos and webinars, an online professional learning community, and face-to-face professional development.
- Support a way for users to suggest product improvements and a mechanism for vetting those changes and pushing them back out to users.

Partnerships
- Give serious consideration to conflict of interest issues that may arise from state partnerships.
- Strategically create partnerships for awareness building, sales, and implementation support. Target organizations that have expertise in K-12 content areas and that are staffed with educators.
- Develop relationships with intermediate units in all target states, and budget to provide them with samples, training, and support.

Sustainability
- Plan for sustainability early on. Don't rely on philanthropic donations.
- Include a variety of stakeholders in sustainability discussions.
- Budget for adequate ongoing sales, marketing, and implementation costs, as well as initial and ongoing development costs.
- In addition to offering a free, online product offering, consider a fee-based line of premium products as described above.
- Clearly delineate core organization values and revisit these often to ensure that business decisions are consistent with them.

Note: These questions were varied depending on time available and material discussed in earlier sections.

Introduction (for all) – Thank you for your time to chat with me today. I'm conducting this research in collaboration with the Hewlett Foundation and the K-12 OER Collaborative, a state-led initiative involving 12 states and other organizations working to develop core, free, openly-licensed K-12 math and ELA curriculum aligned with state college ready standards.

The purpose of this discussion is to find out more about how your state/district adopts core curriculum materials and to explore some new models for this kind of curriculum. Throughout, I'll be asking about math and ELA curriculum. If your answer differs for these different subjects or for different grade levels, just let me know.

Questions for States - Collaborative members:

1. Briefly describe the process in your state for adopting core curriculum in math and ELA.

2. Describe the way core curriculum is funded in your state.

3. (If adoption, depending on cycle) Given your state's adoption schedule, what are the opportunities for new curriculum coming out in the 2016-17 timeframe or beyond?

4. (If open territory) What is your sense of the district selection process in your state? (timing, process, etc.)

5. How many of your schools have already adopted curriculum for CCSS and what has been their satisfaction level? What have been district's biggest challenges with core math and ELA curriculum?

6. To what degree do you think your district curriculum leaders are aware of OER?

7. What do you think the most marketable benefits of OER are?

8. How do you think a free or greatly reduced cost product would be received by your schools? [prompt if necessary on whether quality concerns or other negatives might arise]

9. If districts were to adopt a free or low cost core curriculum, where would the resulting cost savings go?

10. Beyond basic student resources and teachers guides, what product components do you consider essential to a core curriculum? [If necessary, suggest things such as professional development, assessments, differentiated lessons for special populations, etc.]

11. What types of districts in your state do you think would be most receptive to a curriculum like the one the Collaborative is developing? (e.g. big/small, schools already doing 1:1 or blended, etc.)?

12. We are also going to be interviewing district curriculum leaders to get input on these topics. Are there specific people in your state we should talk to?

13. Based on what you know about the Collaborative's product plans, what are you most excited about? What concerns you the most?

14. Are there any other comments you'd like to add?

Thank you!

Questions for States - Non-Collaborative members:

1. Briefly describe the process in your state for adopting core curriculum in math and ELA.

2. Describe the way core curriculum is funded in your state.

3. (If adoption, depending on cycle) Given your state's adoption schedule, what are the opportunities for new curriculum coming out in the 2016-17 timeframe or beyond?

4. (If open territory) What is your sense of the district selection process in your state? (timing, process, etc.)

5. How many of your schools have already adopted curriculum for CCSS and what has been their satisfaction level? What have been your district's biggest challenges with core math and ELA curriculum?

6. To what degree do you think your district curriculum leaders are aware of OER?

7. What do you think the most marketable benefits of OER are?

8. How do you think a free or greatly reduced cost product would be received by your schools? [prompt if necessary on whether quality concerns or other negatives might arise]

9. If districts were to adopt a free or low cost core curriculum, where would the resulting cost savings go?

10. Beyond basic student resources and teachers guides, what product components do you consider essential to a core curriculum? [If necessary, suggest things such as professional development, assessments, differentiated lessons for special populations, etc.]

11. Are you familiar with the work of the K-12 OER Collaborative and if so, what are your thoughts about it? (If not, provide an overview.)

12. How do you think districts in your state would respond to a curriculum like this? What might the pros or cons be?

13. What types of districts in your state do you think would be most receptive to a curriculum like the one the Collaborative is developing? (e.g. big/small, schools already doing 1:1 or blended, etc.)?

14. Are there any other comments you'd like to add?

Thank you!

Questions for districts:

1. Briefly describe your district and its demographics.

2. What is your process for reviewing and adopting core math and ELA curriculum? [probe on who are the key decision makers, timing, etc.]

3. What sales and implementation support do your publishers provide before you make a purchase decision that you consider important? What support is not necessary? [If necessary, suggest things such as in-person presentations, product samples, correlations, pilots, research, etc.]

4. Beyond basic student resources and teachers guides, what product components do you consider essential to a core curriculum? [If necessary, suggest things such as professional development, assessments, differentiated lessons for special populations, etc.]

5. Have you adopted new math and ELA curriculum for the Common Core (or its equivalent) in the last two years?
   If so, what programs were adopted and what is your satisfaction level with it?
   If not satisfied, are you considering another adoption and if so, in what time frame?
   If not, when is your next planned adoption of math and ELA?

6. After hearing each of the following words to describe a new core curriculum in ELA or math, give your immediate reaction including a rating of 1 to 5 with 1 being of little interest or appeal and 5 being very high interest or appeal.

   High-quality
   Specifically designed for new state standards
   Innovative
   Blended
   Free

Open-licensed
Educator-vetted
Uniquely empowers teachers to personalize learning
Greatly reduced cost

7. If there were a free, open licensed, digital core math and ELA curriculum available, what would be your interest level in reviewing it?
   a. What would be most influential in your decision?
   b. What information would you want to know up front in deciding whether to consider this option for adoption?
   c. If premium services such as printed materials and professional development were offered on a fee basis, how would this affect your interest?
   d. If you adopted this curriculum, how might the instructional materials savings be used? Is this under your control?

8. Are there any other comments you'd like to add?

Thank you!

Questions for organizations:

1. Briefly describe your organization and your own experience with OER use by districts.

2. Do you think your school customers are aware of OER? If so, what do they perceive as pros and cons?

3. How do you position the benefits of OER (if at all)?

4. Do you currently market core curriculum? If so, in what subjects? What are some of your challenges and successes?

5. Have you participated in state or district adoption? Do you feel you compete well with commercial/proprietary products? Why or why not?

6. Are there states or regions (or other market segments) that you have found to be more or less receptive to OER?

7. What marketing and sales strategies have you found most effective with your product to date?

8. What is your business model for free materials?

9. What sales and implementation support do you feel is critical to both the adoption of your product and its successful use? [If necessary, suggest things such as in-person presentations,

product samples, correlations, professional development, assessments, differentiated lessons for special populations, etc.]
Do you provide those now? If so, how?

10. Do you provide some products and services to accompany OER on a fee basis? If so, which ones? How is this received?
(If not addressed otherwise, ask specifically about professional development. What do they offer? How do they deliver? Pricing?)

11. How do you feel about the positioning of OER as "free" or "greatly reduced cost"?

12. What is your organization's interest level, experience, or capacity in creating new business models around the implementation of OER?

13. Are there any other comments you'd like to add?

Thank you!

State *	Rank by pop	CCSS state	Adoption/open	ELA adoption	Math adoption	Notes
CA	1	X	adoption	2015	2014	8 yr cycle
TX	2		adoption	2017	2013-14 (K-8)	
FL	3	X	adoption	2018	2017	50% may be purch off list; 50% must be dig
NY	4	X	open			
IL	5	X	open			
OH	7	X	open			
GA	8	X	adoption	2013	2012	6 yr contract
NC	9	X	adoption	2018 K-8	2014	need to be in publishers registry
PA	9	X	open			
MI	10	X	open			
NJ	11	X	open			
VA	12		adoption	2011	2010	
WA	13	X	open			
MA	14	X	open			
AZ	15	X	open			
IN	16		adoption ??	locally scheduled		Only reviewing K-5 reading now (does not really appear to be an adoption state?)
TN	17	X	adoption	2018	2020	http://tn.gov/education/section/textbook-services
MO	18	X	open			
MD	19	X	open			
WI	20	X	open			
MN	21		open			
CO	22	X	open			
AL	23	X	adoption	2018	2017	First CCSS adoptions were 2011-12
SC	24	X	adoption	2012	2012	6 yr contract
LA	25	X	adoption	yearly	yearly	http://www.louisianabelieves.com/resources/library/curricular-resources

* States in bold are members of the K-12 OER Collaborative.

State*	Rank by pop	CCSS state	Adoption/open	ELA adoption	Math adoption	Notes
KY	26	X	adoption	K-8 - any subject 2014-16		no state review?? (not clear that this is really an adoption state)
OR	27	X	adoption	2013-14	2014-15	
OK	28		adoption	2015 (rdg, lit), 2017 (LA)	2016	
CT	29	X	open			
IA	30	X	open			
MS	31	X	adoption	2013	2012	
AR	32	X	adoption	2010	2012	6 yr cycle
UT	33	X	open			yearly review for recommended list
KS	34	X	open			
NV	35	X	adoption	district-by-district		7 yr contract
NM	36	X	adoption	2014 (9-12); 2015 (K-8);	2012	
NE	37		open			
WV	38	X	adoption	2015?	2018?	new programs may be reviewed off cycle
ID	39	X	adoption	2018 (K-5); 2019 (6-12)	2015	
HI	40	X	open			
ME	41	X	open			
NH	42	X	open			
RI	43	X	open			
MT	44	X	open			
DE	45	X	open			
SD	46	X	open			
ND	47	X	open			
AK	48		open			
VT	49	X	open			
WY	50	X	open			

State	Agencies	Number	Web site	Notes
CA	County offices	58	http://www.cde.ca.gov/re/sd/co/index.asp	
TX	Educational service centers	20	http://tea.texas.gov/regional_services/esc/	
FL	Educational consortia	4	http://www.fldoe.org/teaching/professional-dev/coordinated-system-of-professional-dev.stml	Districts are based on counties.
NY	BOCES	37	http://www.boces.org/AboutBOCES/BOCESinYourArea.aspx	
IL	Regional offices of education	56	http://www.isbe.net/regionaloffices/pdf/roedirectory.pdf	
OH	Educational service centers	53	http://www.oesca.org/vnews/display.v/SEC/ESCs	
GA	RESAs	16	https://www.georgiastandards.org/Learning/Pages/ETC-RESA/RESA.aspx	
NC	Education alliances	9	http://www.aesa.us/resources/nc-esas.cfm	
PA	Intermediate units	29	https://paiu.org/ius.php	
MI	RESAs/Educational service agencies	8?		
NJ	Educational Services Commissions	12?		
VA				
WA	Educational service districts	9	http://www.washingtonesds.org/domain/27	
MA	Education collaboratives	26	http://moecnet.org/directory	
AZ	County ESAs/RSC	14/5	http://www.azed.gov/county-educational-service-agencies/ http://www.azregionalcenters.com/	
IN	ESCs	9	http://www.doe.in.gov/outreach/education-service-centers	

* States in bold are members of the K-12 OER Collaborative.

State	Agencies	Number	Web site	Notes
TN				
MO				
MD				
WI	Cooperative ESAs	12	http://www.cesawi.org/contact/	
MN	Service cooperatives	9	http://www.mnservcoop.org/domain/24	
CO	BOCES	20	http://coloradoboces.org/modules/cms/pages.phtml?pageid=144110&sessionid=e568e29d38397e17445cdfc140dae654&sessionid=e568e29d38397e17445cdfc140dae654	
AL				
SC				
LA				
KY	Education cooperatives	8	http://education.ky.gov/comm/about/Pages/Kentucky-Education-and-Special-Education-Cooperatives.aspx	
OR	ESDs	19	http://www.osba.org/edlinks/esds.asp	
OK				
CT			http://www.aesa.us/resources/ct-esas.cfm	
IA	Area education agencies	9	http://www.iowaaea.org/where_is_my_aea/	
MS			http://www.aesa.us/resources/ms-esas.cfm	
AR	Education cooperatives	14	http://nea.k12.ar.us/co-ops.php	
UT			http://www.aesa.us/resources/ut-esas.cfm	
KS	ESCs	7	http://www.ksde.org/Portals/0/Directories/2014-2015EducationalDirectory/T.%20Service%20Centers%202014.pdf	
NV				3 regional professional development centers
NM	Regional education cooperatives	9	http://www.sde.state.nm.us/Directory/REGIONAL%20EDUCATION%20COOPERATIVES.pdf	

State	Agencies	Number	Web site	Notes
NE	Education service units	19	http://www.esu1.org/stateesus.html	
WV	RESAs	8	http://resa2.k12.wv.us/wvresa.asp	
ID				
HI				
ME				
NH				
RI	Collaboratives		http://www.aesa.us/resources/ri-esas.cfm	
MT			http://www.aesa.us/resources/mt-esas.cfm	
DE				
SD	Educational cooperatives	15	http://www.doe.sd.gov/ofm/edudir.aspx	
ND	Educational cooperatives		http://www.aesa.us/resources/nd-esas.cfm	
AK			http://www.aesa.us/resources/ak-esas.cfm	
VT			http://www.aesa.us/resources/vt-esas.cfm	
WY	BOCES			

The business models available to K-12 OER curriculum vary greatly depending on the market segment that is being addressed. Generally speaking, the K-12 market is divided into basal curriculum, which is a full-year, core curriculum for major subjects like math and English language arts, and supplemental curriculum, which includes everything else used in the classroom.

Many supplemental curricula are chosen informally and can be selected by individual teachers. They are typically lower in cost (including some that are free), are distributed in a more isolated context than basal curriculum, and require a low level of institutional approval. For this reason, business models for these products can vary widely and include things like community-support (volunteers), advertising support, low costs paid by end users (teachers and/or schools), and bundling with larger product offerings.

Basal (or core) curricula, however, typically go through a much more rigorous adoption process and are chosen at a school district level. Basal curricula include not only textbooks or other core curriculum, but also a wide variety of ancillary products and services that are packaged together with this. In some cases, the states or districts specify what must be included. Basal curricula are approved first at the state level in approximately 20 states, including the three largest states (see "State Adoption Schedules"), but the final decision to adopt is made at the district in both adoption and open states.

These products are typically contracted for on a six to seven year cycle. Basal curriculum decisions are also closely tied to the accountability concerns that have resulted from high stakes testing, with publishers often promising test score improvements with the use of their products. Because of that, district decision makers tend to be risk averse with regards to choosing basal curriculum.

For those reasons, the positioning and implementation strategies for these products are important. And because the costs of both developing a product such as this, as well as marketing, selling, and delivering it are relatively high, the business model is critical.

The focus of the business model options presented here is on basal curriculum products, and for the purposes of this report, the costs to be considered fall into two categories: upfront development and ongoing sales, marketing, and implementation costs.

Most large-scale OER projects to date have funded the upfront development of projects like this through philanthropic grants. Other alternatives to this could include government grants, social impact bonds, traditional financing (with payback to be made based on revenues collected; see below), partner participation, state participation, or district participation (including some form of product sales as described below).

States, districts, or other partners who participate financially in the project upfront could be given product development input, review privileges, and piloting support, as well as possible discounts on fee-based products or services after the product is released.

Beyond upfront development though, the costs of marketing, selling, and implementing a project like this are not always planned for, and they can be quite significant. These parts of the package are sometimes not included by OER publishers, in favor of a "build it and they will come" model. However, in K-12, just because materials are "free," there is no guarantee that they will be adopted or used, especially for basal curriculum. The unfortunate result of this has often been underuse of high quality materials.

One important way to consider funding projects like this is through districts. This could be through some sort of membership model or through product and service sales. While this may be counterintuitive when the idea of OER is to be "free," in fact, even if the digital content is free, there are other associated costs. If print materials are required, the printing costs are typically absorbed by the schools. If the materials are used in a digital format, the costs include hardware, software, maintenance, support, etc. And for any use, there are significant professional development and related implementation costs. Beyond this, there are other items that open materials typically don't include that have to be paid for, such as assessment, customization, differentiation, and ancillary materials.

Another point to be considered are positioning challenges associated with "free," which signals reduced value or quality to many. In particular, the glut of free digital supplemental materials, some of which is not of the highest quality, has led to these materials not being taken seriously. While free is the standard for digital supplemental materials, core materials are almost always high priced in the market at large.

For those reasons, a suggested approach is to position curriculum such as this as having a greatly reduced cost as opposed to being "free," and to use the proceeds to fund the work needed to make sure that these valuable, high quality instructional materials are adopted and used effectively.

The following are options for how such a product might be packaged:

1. Option 1 - Free digital curriculum plus fee-based services, which could include:

    - Curriculum customization - This could be a customization for particular state standards, to "fill out" the product offering, or to customize for district needs based on assessment data.
    - Electronic product customization - This would involve reformatting of content for whatever LMS and/or devices a district might want to use, such as Moodle, Blackboard, Edmodo, etc., as well as for mobile devices or other uses.
    - Professional development and support - This could include face-to-face workshops, video-based workshops, membership in a support community, etc.
    - Summative and formative assessments - This is not included in most OER offerings and is often offered as an additional sales item (either by the basal publisher or by another organization) even for traditional curriculum.
    - Ongoing product support

The pros and cons for this model are as follows:

	Pros	Cons
For the district customer	- Provides important services - Modular choices - Price flexibility - Significantly lower cost than commercial offerings	May not fit existing budget models
For the publisher	- Provides services critical to successful implementation - Leverages existing expertise - Partnership opportunities	"Free" plus not free may be confusing - Less predictable revenue stream - Additional costs of additional services - Wide choice may result in uneven implementation

2.   Option 2 - Complete product bundle sold at a package price*, which might include some combination of the above listed services with any of the following:

- Print on demand - Core curriculum, teacher materials, and/or ancillaries delivered in a print format. [Printed books are still required by many district uses, including not only those that don't have sufficient technology infrastructure, but also those for whom equity in home use is a concern. There have been lawsuits around this issue that make this a necessity in many places.]
- Ancillaries - Additional "all rights reserved" support products, which could come from a variety of sources. [Commercial core curriculum products are typically bundled with a large assortment of ancillaries, while OER often does not include these.]
- Hardware and software - Curriculum reformatted if necessary and pre-installed on student mobile devices, which are included in the overall price.

*It is understood that the curriculum would also be available digitally for free.

	Pros	Cons
For the district customer	- Provides important products and services - Modular choices - Price flexibility - Better fit with existing budget models "Apples to apples" comparison with other commercial offerings	Possible higher cost than option 1

	• Significantly lower cost than commercial offerings depending on configuration	
For the publisher	• More revenue • Provides additional products and services critical to successful implementation • More uniform implementation quality • Leverages existing expertise • Partnership opportunities	• More complex sales and implementation process • Requires additional staffing (or partnerships) • Additional costs of goods sold • Inventory costs

3.   Option 3 - Per student fee for all materials and services for duration of contract

This is similar to Options 1 or 2 but is positioned in a different way. (It is understood that the curriculum would also be available digitally for free.)

	Pros	Cons
For the district customer	Same as Option 2, plus: • May be more cost effective for some schools • Spreads cost over time	Same as Option 2, plus: • May not fit existing budget models (depends on state/district)
For the publisher	Same as Option 2, plus: • Spreads revenue over time	Same as Option 2, plus: • Possible funding instability

4.   Option 4 - Membership

This model involves states or districts purchasing a yearly membership priced on a per student basis. As a part of this membership, customers could receive premium services such as input into the development process, video-based professional development, priority support, and/or a discount off other product and service offerings.

This model might fit best if there are significant ongoing and growing service components to the product, such as an online learning community that is a "members only" benefit.

	Pros	Cons
For the district customer	Same as Option 2, plus: • Purchase flexibility from year-to-year	Same as Option 2, plus: • May not fit existing budget models
For the	Same as Option 2, plus:	Same as Option 2, plus:

publisher	• Increases customer buy-in and loyalty indefinitely	• Requires repeated sales efforts each year • Perceived decline in value over time could result in attrition

5.   Option 5 - Some combination of the above

In all of these cases, marketing should highlight the fact that the savings realized on instructional materials can be used to fund the additional products and services, resulting in an overall cost savings. The specifics of how this might work would vary by state, depending on how the state handles instructional materials funding. A state-by-state analysis and strategy should be conducted to plan for this.

For the model in which a bundle of products and services are sold to end customer districts, publishers may consider several models for how revenues are collected. In particular, for those that are not prepared to manage and staff the various additional project offerings themselves, partnerships provide an option:

- The publisher could develop and sell these products and services itself. Doing so would require development and sales resources (some of which could be contracted out), but would result in the publisher collecting 100% of the revenues.
- The publisher could develop these products and services and then license them to third-parties to sell and deliver them in exchange for some agreed upon royalty. This would require a lower level of investment and would result in a lower level of revenue. This model may be challenging because of the typically low margins in this type of work; however, it could work with the right partners.
- The publisher could cultivate partners who are interested in developing, selling, and delivering these products and services themselves. (In fact, since the publisher's curriculum is open licensed, it is likely that some third-parties may undertake this with or without the guidance of the publisher.) This would require minimal investment on the part of the publisher, other than cultivating the relationships, and though bringing in no additional revenue, could substantially boost the adoption of the product.
- Some combination of the above

On the following page is a business model canvas that shows a combination of these options which might be applied for the K-12 OER Collaborative as an example.

Open Business Model Canvas

Overall Open Environment Business Fits In? This business model is designed for publishers of K-12 basal curriculum, such as the K-12 OER Collaborative.

Key Partners

Current:

Selected state departments of education
CCSSO
The Learning Accelerator
Lumen Learning
Creative Commons
SETDA
ISKME
SIMBA
AASM iNACOL
Contracted publishers

Prospective:

Additional state departments of education
Curriculum associations, such as NCTM, NCTE, IRA, and ASCD
Intermediate units
Districts
Other publishers or service providers

Key Activities

Producing and providing freely available and open licensed core curriculum for K-12 math and English language arts that is high quality and aligned to the Common Core State Standards

Getting these resources adopted by a significant number of districts nationwide

Working with partners to achieve implementation goals

Key Resources

K-12 basal curriculum for math and English language arts that is CCSS-aligned (pending)

Professional development resources [publisher of these TBD]

Knowledge of the unique K-12 basal market and how it operates

Partnerships

Value Proposition

This curriculum will be high quality and aligned to the Common Core State Standards. It will include freely remixable assets that can be used digitally or in print and are optimized for personalized learning.

By leveraging one high quality, shareable curriculum across many states, the cost is reduced for all.

Through lower cost, more resources can be allocated to areas such as teachers and their professional growth.

As the curriculum is remixed and continually improved, those enhancements will be shared back with the community.

Social Good

Freely available and remixable core curriculum for K-12 students, which saves public fund and offers the opportunity to redirect public funds into other areas

CC License

core curriculum - CC BY

Licenses on ancillary products, professional development resources, etc. may vary.

Customer Relationships

This product requires relationships with a variety of customers including states, districts, and schools.

Typical contracts for this type of product are for 5-7 years and include support and related services.

In this case, other organizations are likely to co-develop and distribute related resources as well.

Channels

Digital delivery (publisher to customer)

Physical product delivery (optional; publisher and partners to customer for print or technology components)

Face-to-face delivery (publisher and partners to customer for professional development)

Customer Segments

States (gatekeeper in adoption states)

Districts (main decision maker)

Schools (main users)
- Administration
- Teachers
- Students

Cost Structure

Upfront development costs (to be paid by foundations and other funders; see accompanying document)

Marketing and implementation costs
- Marketing
- Sales
- Professional development (development and delivery)
- Support
- Additional products and services

Revenue Streams

Upfront partnership fees

Bundle fees to end customers for a variable product and service bundle which might include:
- Curriculum customization
- Professional development and support
- Repackaging of digital assets for district LMSs
- Ancillary products
- Print on demand

School customers currently pay a significant price for these products and services. Using open resources, a roughly comparable bundle could be delivered for less than half the cost or a more downscaled bundle for less, depending on their needs and desires.