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# Open Educational Resources Project

## 2013

Authorizing legislation: [RCW 28A.300.803](#)  
(<http://apps.leg.wa.gov/RCW/default.aspx?cite=28A.300.803>)

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## Executive Summary

Open Educational Resources (OER) are teaching and learning materials that reside in the public domain or that have been released under an open license. These resources may be used free of charge, distributed without restriction, and modified without permission.

In 2012, the Washington State Legislature directed OSPI to create a collection of openly licensed courseware aligned with the Common Core State Standards (CCSS) and conduct an awareness campaign to inform school districts about these resources. The Legislature saw this as an opportunity to both “reduce the expenses that districts would otherwise incur in purchasing these materials” and “provide districts and students with a broader selection of materials, and materials that are more up-to-date.”

During the 2012–13 school year, OSPI:

- Conducted a comprehensive instructional materials review of seven full-course secondary OER mathematics curricula and twenty secondary English Language Arts units.
- Created an online library of OER vetted through the materials review.
- Hosted two OER Day events in eastern and western Washington, in partnership with ESD 101 and Puget Sound ESD, respectively. The programs reached 270 participants in 71 school districts. Post-event surveys showed that district-level attendee consideration of OER for instructional material adoption rose from 13% to 78%.
- Collaborated with an additional five of the state’s nine Educational Service Districts (ESDs) to host regional OER Day events tailored to the needs of their district stakeholders.
- Delivered additional OER awareness presentations at professional conferences and meetings across the state. The presentations reached over 900 district administrators, curriculum and technology directors, school board members, teachers, and teacher librarians.
- Joined the Achieve OER Institute designed to leverage review work and share best practices for large-scale implementation across state and district lines.

Over the next two years, the OER project will:

- Continue to review OER for Common Core alignment. The next review will cover full-course Geometry and 9<sup>th</sup>-and 10<sup>th</sup> grade English Language Arts. This review process will jumpstart districts’ replication of the procedure as they consider instructional materials for adoption.
- Institute a grant program for districts interested in adapting materials based on reviewer feedback and implementing these materials in the classroom. All resources produced with the OER grant will be licensed under the Creative Commons Attribution Unported license and available to all educators in a public repository.
- Expand OER outreach efforts to include a webinar series and targeted district visits to address regional stakeholder needs.

# Introduction

Open Educational Resources (OER) are teaching and learning materials that reside in the public domain or that have been released under an intellectual property license that permits their free use and re-purposing by others. They provide an extraordinary opportunity for people to share knowledge on a wide scale.

## Why are OER important?

- OER are available at no cost to the district.
- OER materials are often more up-to-date than textbooks purchased on a multi-year replacement cycle.
- OER can be updated and modified without asking the content creator for permission. This allows resources to be adapted to meet instructional goals.
- With the adoption of the Common Core State Standards (CCSS), conditions are ripe to explore the use of OER. Districts need resources that align with the new standards, and content creators are able to create materials for use across dozens of states and by millions of students.
- Many districts are looking to shift to a one-to-one computing environment, where every student has a tablet, laptop, or other device. OER are a cost-effective way to provide digital content.

## OSPI's OER Project

The OER Project is creating a collection of openly licensed courseware and an awareness campaign to inform school districts about these resources in response to a mandate established by the Legislature in Engrossed Second Substitute House Bill 2337, 2011 (See [Appendix A](#) for the legislation). Schools need new teaching materials that address the big instructional shifts called for by the CCSS. OER may help fill that need.

## Project Goals

OSPI created an internal workgroup consisting of members of the agency's Digital Learning, Teaching and Learning, and Educational Technology departments. This workgroup planned a three-pronged strategy to meet the vision of HB 2337:

1. **OER Awareness and Capacity Building:** Increase district awareness of openly licensed resources and provide districts with the resources to locate, evaluate, and implement OER.
2. **OER Review:** Develop a review process to evaluate alignments to the CCSS and act as a model for districts considering OER.
3. **OER Library Creation:** Develop a catalog of openly licensed material reviewed for alignment with the CCSS. Include links to other open courseware available to school districts free of charge.

# OER Awareness and Capacity Building

## OER Awareness Survey

To gauge OER awareness in Washington, the OER Project surveyed district-level staff involved in curriculum adoption. Survey results showed that 71% of the 147 respondents had either limited awareness or were unaware of OER. When asked about their perceived barriers to adoption of OER instructional material, issues of quality and technology access rose to the top. Additional concerns in the “other” category were level of alignment to the Common Core State Standards. Responses from the OER Landscape Survey provided valuable information to help shape the OER Project design for 2012–13.

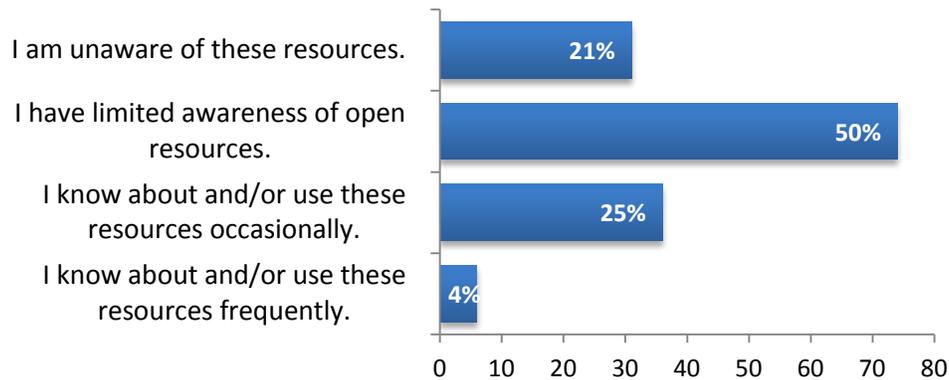


Figure 1: Current Level of OER Awareness  
(based on 147 responses from OER Landscape Survey October 2012–January 2013)

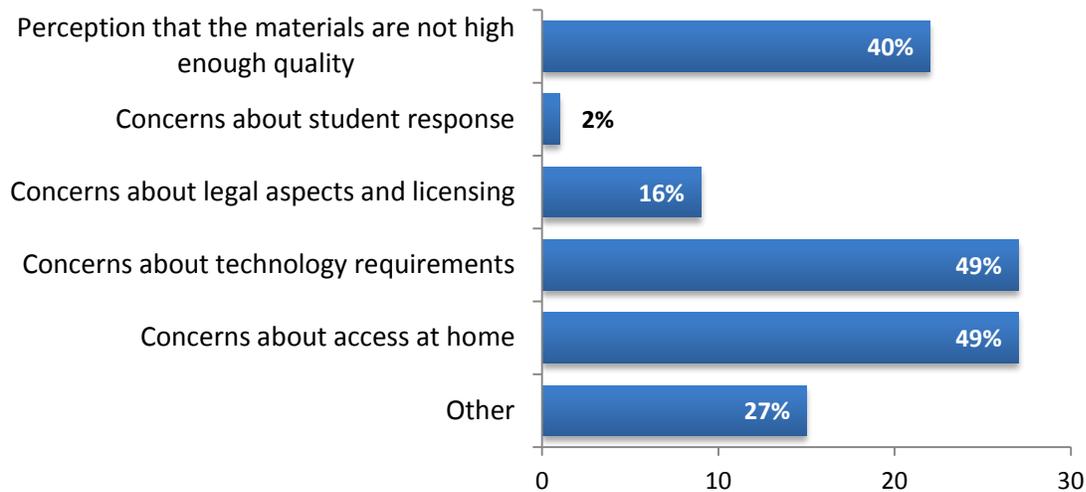


Figure 2: Barriers to Implementing OER Textbooks  
(based on 55 district-level responses from OER Landscape Survey October 2012–January 2013)

## OER Events

Based on needs identified in the OER Landscape Survey, the planning team designed a conference agenda addressing those areas. Below is the slate of presentations offered during the two OER

events. This program ran in both eastern and western Washington in order to ensure access for educators across the state. OSPI collaborated with Puget Sound ESD to hold the Renton event on January 28, 2013. Spokane Public Schools and ESD 101 were partners in presenting the April 22, 2013 event in Spokane.

### OER Day Presentations

- OER Project vision – *Representative Reuven Carlyle*
- OER in K-12: Sharing, Common Core and Future Directions – *Dr. Cable Green, Creative Commons*
- Addressing Common-Core shifts with OER - *Greta Bornemann, Mathematics Director and Liisa Moilanen Potts, ELA Director, OSPI*
- OER as a full curriculum option – *Hetav Sanghavi, CK-12 (Renton)/Angelyn Pinter, Saylor.org (Spokane)*
- Understanding open licensing – *Dr. Cable Green, Creative Commons*
- Technology requirements and balancing access with security – *Stosh Morency & Greg Whiteman, Kent School District and Dennis Small, Educational Technology Director, OSPI*
- Case study of full-course OER - *Travis Lemon, Utah Mathematics Vision Project*
- Guide to locating OER and reviewing quality - *Barbara Soots, OER Program Manager, OSPI*

The event announcement targeted district-level stakeholders involved in curriculum adoption decisions; however, other educators were welcome to attend. In total, 270 educators attended the free events.

The events achieved the goal of increasing educator awareness of OER. At the event conclusion, 90% of attendees rated the experience as extremely/very useful in helping learn more about OER. District attendees showed a shift from 13% to 78% in their consideration of OER for adoption.

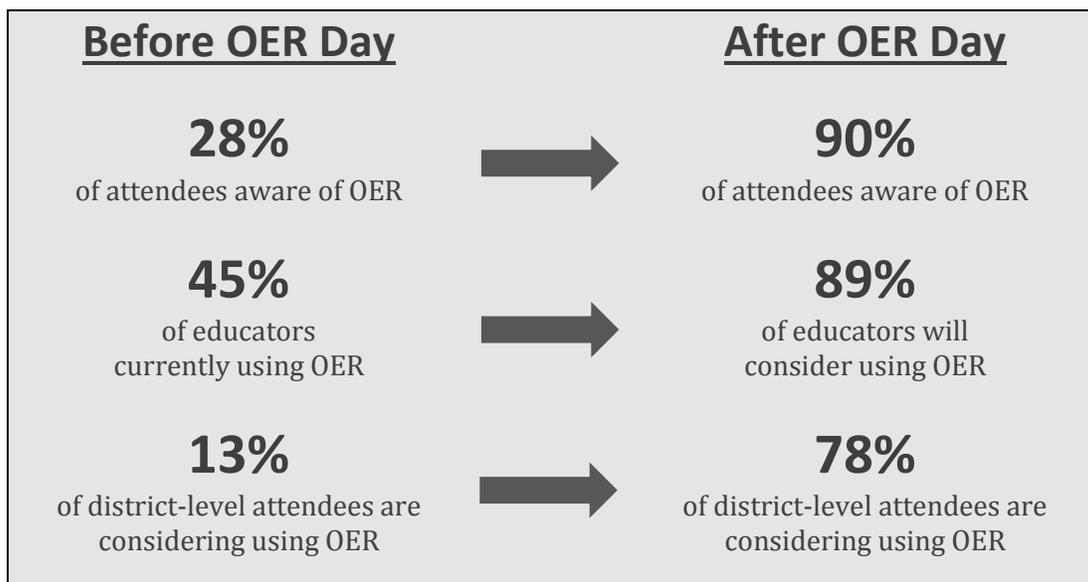


Figure 3: Pre and post OER awareness based on 123 responses from attendees at OER Day in Renton and Spokane (83 building level and 40 district level respondents)

## OSPI-Supported ESD OER Events

After the initial OER Day event in Renton, a number of ESDs expressed interest in holding smaller regional OER events. Barbara Soots, OER Program Manager, or Karl Nelson, Digital Learning Department Director, attended each of these events as a presenter. In order to promote capacity building, the events were coordinated, managed, and operated by our ESD partners. In some cases, OSPI provided some financial assistance to the ESDs to reduce attendee costs.

ESD 114	Bremerton	April 19, 2013
ESD 189	Anacortes	May 20, 2013
ESD 171	Wenatchee	May 23, 2013
ESD 112	Vancouver	May 30, 2013
ESD 105	Yakima	June 26, 2013

In total, approximately 175 educators attended the events. With ESD 113 and ESD 123 planning similar events for fall 2013, all nine ESDs will have engaged with their stakeholders in discussing the benefits of OER.

## OER Project Presentations

OSPI presented on OER at 19 professional conferences and meetings across the state. The events reached 985 district administrators, curriculum and technology directors, school board members, teachers, and teacher librarians.

## School District Outreach

After initial exposure to OER, several districts expressed interest in more in-depth conversations about implementation. OER Project team members met with Hoquiam, Olympia, Lake Washington, and Richland school boards. Discussion points included:

- Engaging stakeholders in the OER conversation
- OER delivery platforms and technology requirements
- Professional development strategies
- Determining quality and alignment to standards
- Required policy changes
- Measuring impact

In each case, the OER Project team provided examples of current OER textbooks and existing research about quality and effective OER implementation. A newspaper article describing Richland's movement toward OER is included in [Appendix B](#).

## National Collaborations

In 2012, Washington joined the Achieve OER Institute. Achieve, Inc., is a bi-partisan, non-profit organization that partnered with the National Governors Association and the Council of Chief State School Officers on the Common Core State Standards Initiative.

Washington was one of seven states (California, Illinois, Louisiana, Minnesota, North Carolina, Washington, and Wisconsin) brought together to discuss issues and policy barriers surrounding

using OER in college- and career-ready standards implementation. The goals of the OER Institute were to:

- Encourage collaboration among states for the implementation of OER;
- Increase awareness and use of OER in states to support successful implementation of the CCSS at the state, district, school and classroom levels;
- Assist states in implementing high-quality, CCSS-aligned OER;
- Increase the number of quality OER that are aligned to the CCSS and increase access to those OER for districts and teachers; and
- Train state and district personnel to use the OER rubrics and the Achieve OER Evaluation Tool.

This ongoing, year-long effort included webinars for states to discuss issues such as the use of open licensing and measures of quality, as well as an in-person convening in November 2012 for state teams to share current progress in using OER and engage in strategic planning activities to use OER in their transition to new standards. Members of the Washington OER Institute team represented project stakeholders from across the state:

- Amy Barber, Statewide Educational Service District Network Coordinator
- Rick Biggerstaff, Coordinator, Secondary Mathematics, Spokane School District
- Greta Bornemann, Mathematics Director, OSPI
- Steve Coker, Teacher-Librarian, North Thurston High School
- Michael Farmer, Director, Instructional Technology, Tacoma Virtual Learning
- Karl Nelson, Digital Learning Department Director, OSPI
- Barbara Soots, OER Program Manager, OSPI

Karl Nelson and Barbara Soots also participated in an Achieve OER Policy Advisory Group. This group focused on developing a set of recommendations for state and local policy makers for utilizing OER as they work to implement the Common Core State Standards.

Key findings from Achieve's OER Institute, including a section on Washington's OER legislation and project efforts, are included in [Appendix C](#).

## **OER Review**

### **Purpose**

As a part of the legislative mandate to identify and develop a library of openly licensed courseware aligned with the Common Core State Standards (CCSS), OSPI conducted a review of OER in high school English Language Arts (ELA) and mathematics. The review process, conducted in May 2013, made use of existing review instruments designed to gauge alignment with the CCSS.

### **Review Background, Goals, and Process**

Quality assurance and standards alignment are priorities as districts assess any new instructional materials. The goals of the review were:

1. Help educators select high-quality materials for their classrooms;
2. Provide districts with information to help with materials adoptions and a replicable process and instruments to evaluate CCSS alignment of instructional material; and
3. Identify gaps in CCSS alignment that can be addressed by content creators or district users.

OSPI examined available OER in Algebra 1 or Integrated Math 1 (full course) and individual units in 11<sup>th</sup> and 12<sup>th</sup> grade English Language Arts. In early 2013, OSPI announced the OER review and sought materials to include in the process. While some OER developers requested to have their materials reviewed, the OSPI OER team also identified OER that met the scope of the review.

To conduct the OER review, OSPI recruited and selected a committee of 10 ELA and 10 mathematics reviewers. The committee analyzed how well the materials addressed the CCSS.

The Washington OER review combined use of several instruments designed by CCSS developers and state/national curriculum experts:

- Publishers' Criteria for the Common Core State Standards (for English Language Arts, K–2 and 3–12, and Mathematics, K–8 and high school) developed by CCSS authors
- Educators Evaluating Quality Instructional Products (EQuIP) Rubric based on the Tri-State Rubric and modified by Achieve, Inc.
- Rubrics for Evaluating OER Objects developed by Achieve, Inc.

In some cases, we used the rubrics “as is,” and in others, we discovered overlap and made adaptations to eliminate duplicated information reporting from multiple sources. In addition to the above rubrics, we added a Common Core State Standards checklist as well as an Overall Reviewer Comments form.

Copies of all the rubrics distributed to reviewers are located in the Rubrics section on the OSPI OER Project website (<http://digitalllearning.k12.wa.us/oer/review/2013/report/rubrics.php>).

## Review Results

Most ELA high school classes use a dynamic set of units rather than textbooks with a fixed sequence. In ELA, reviewers found many choices for educators seeking ELA units with some alignment to the CCSS. For 10 of the 20 units reviewed, reviewers on average indicated Agree or Strongly Agree to the statement, “I would use this material in my classroom.” An additional six of the twenty units received an average rating of close to Agree. Educators can reliably consider many of the reviewed OER ELA units for use in their classroom. They can be confident that the units can be reasonably adapted to meet the CCSS by an experienced teacher versed in the new standards. See Appendix F for aggregate scores on several of the review instruments.

In mathematics, reviewers found that OER are an emerging platform for mathematics curricula with alignment to the CCSS. The platform shows significant promise as a viable selection in the future, but is still evolving and not yet mature. Two of the seven products ranked above the others

when all rubrics were combined. For the most part, the other products showed potential in some areas, but their comprehensive scores were lower, and a majority of the reviewers did not recommend the full course for use. See Appendix F for aggregate scores on several of the review instruments.

For both the ELA and mathematics reviews, extensive reviewer notes provide suggestions for adaptations to meet the specific needs of districts and students with regard to CCSS implementation. OER have the capacity to provide equitable access to strong content materials for all students, regardless of the fiscal situation in their school.

The OSPI OER Project website provides the results of this OER review (<http://digitallearning.k12.wa.us/oer/library>).

A link to the complete OER review document is included in [Appendix D](#).

## **OER Library**

All the reviewed resources mentioned above may be found in the OER Project website's Reviewed Library (<http://digitallearning.k12.wa.us/oer/library>). Each resource entry includes important supplemental information that clarifies the type of open license, available delivery formats, professional development opportunities, and instructional supports.

In addition to the vetted resource section, there is a listing of suggested resource sites and OER repositories.

To address district requests for an OER Toolkit, there is a section devoted to helpful resources for school districts and teachers interested in implementing OER and communicating with stakeholders in their educational communities. These communication documents are found in [Appendix E](#).

## **Conclusion and Next Steps**

### **Outreach**

The two large-scale OER Day events during 2012–13 were well attended and effective at addressing initial OER awareness. In 2013–14, the OER Project continues to work closely with the ESDs to help plan smaller regional events tailored to their stakeholder needs.

### **OER Review**

The OER Project will refine the review process detailed above. Future reviews will be a resource for districts as they consider OER adoption. The next targeted areas will be full-course Geometry and 9<sup>th</sup> and 10<sup>th</sup> grade band ELA units.

### **Grant Program**

As a follow up to the 2012–13 OER review report, OSPI is implementing a competitive grant program. Proposals are being solicited from districts interested in working together to adapt materials based on reviewer feedback and/or implementing these materials in classrooms. This

program recognizes the importance of educators in OER development and encourages improvement based on user feedback. While priority goes to projects filling gaps in materials reviewed by OSPI's process or implementing those materials in the classroom, projects involving other openly licensed materials will also be considered. All resources produced with the OER grant will be licensed under the Creative Commons Attribution Unported license and available to all educators in a public repository.

Over the next two years, the OER Project will expand outreach efforts, encouraging districts to replicate the OER review process in their instructional materials adoptions, tailoring district OER events to regional stakeholder needs, and providing OER webinars to reach larger audiences. The project team will work closely with OER grantees to successfully implement OER and create a statewide network of educators sharing best practices with regard to OER usage and district policies.

## **Acknowledgments**

### **OSPI OER Project Team**

- Karl Nelson, Digital Learning Department Director
- Barbara Soots, OER Program Manager
- Greta Bornemann, Mathematics Director
- Liisa Moilanen Potts, English Language Arts Director
- Jessica Vavrus, Assistant Superintendent, Teaching and Learning
- Dennis Small, Educational Technology Director
- Peter Tamayo, Chief Information Officer
- Alan Burke, Deputy Superintendent
- Susan Canaga, Digital Learning Support Manager

# APPENDICES

## Appendix A: Legislation

Legislation: Engrossed Second Substitute House Bill 2337

<http://apps.leg.wa.gov/billinfo/summary.aspx?bill=2337&year=2011>

## Appendix B: Tri-City Herald Article

Tri-City Herald Richland School District Looks to Digital Materials

<http://www.tri-cityherald.com/2013/06/29/2453441/richland-school-district-looks.html>

## Appendix C: Key Findings from Achieve OER Institute

State Support for Open Educational Resources: Key Findings from Achieve's OER Institute

<http://ce0eccb2659e2d5568aa->

[527421faea66321c40807bf8267b59b3.r27.cf1.rackcdn.com/OERInstitutePolicyBriefFINAL.pdf](http://ce0eccb2659e2d5568aa-527421faea66321c40807bf8267b59b3.r27.cf1.rackcdn.com/OERInstitutePolicyBriefFINAL.pdf)

## Appendix D: OSPI OER Review

OSPI Open Educational Resources Review

[http://digitalllearning.k12.wa.us/oer/review/2013/report/OSPI\\_OER\\_Report\\_2013.pdf](http://digitalllearning.k12.wa.us/oer/review/2013/report/OSPI_OER_Report_2013.pdf)

## Appendix E: OER Toolkit

Open Educational Resources: Talking Points to Engage Stakeholders in Conversation

[http://digitalllearning.k12.wa.us/oer/OER\\_TalkingPoints](http://digitalllearning.k12.wa.us/oer/OER_TalkingPoints)

Open Educational Resources: Considerations for School Districts

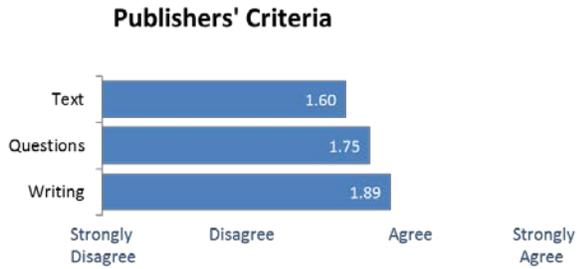
[http://digitalllearning.k12.wa.us/oer/OER\\_KeyConsiderationsForDistricts.pdf](http://digitalllearning.k12.wa.us/oer/OER_KeyConsiderationsForDistricts.pdf)

OER Presentation Template and Selected Readings

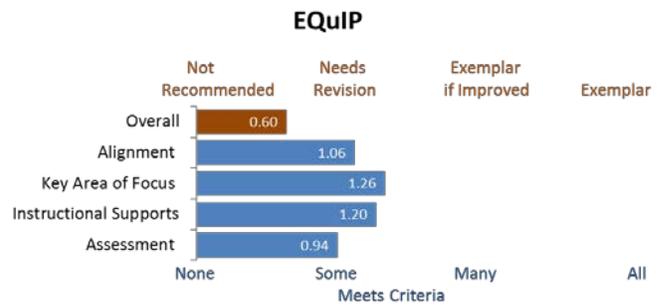
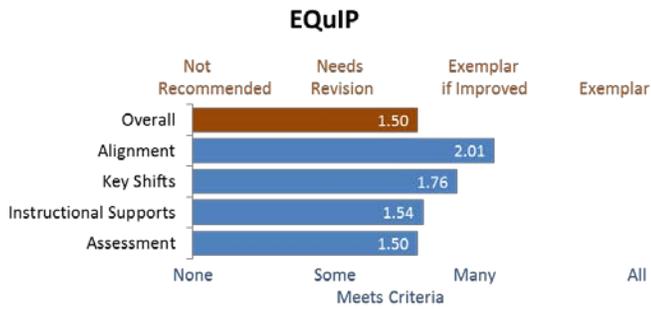
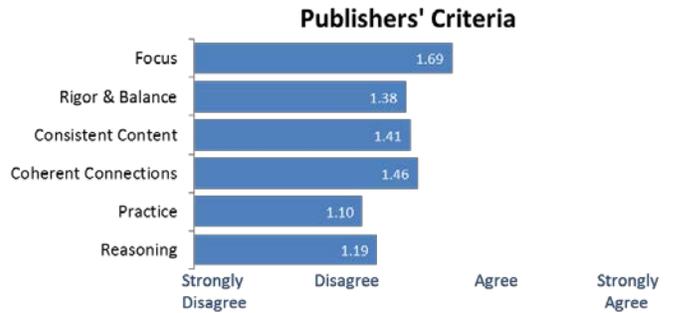
<http://digitalllearning.k12.wa.us/oer/resources.php>

# Appendix F: Average Scores for ELA and Math OER

## Average ELA OER Reviews



## Average Math OER Reviews



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