iDigBio Resources as OER:

Implementation Considerations for Design, Use, and Assessment

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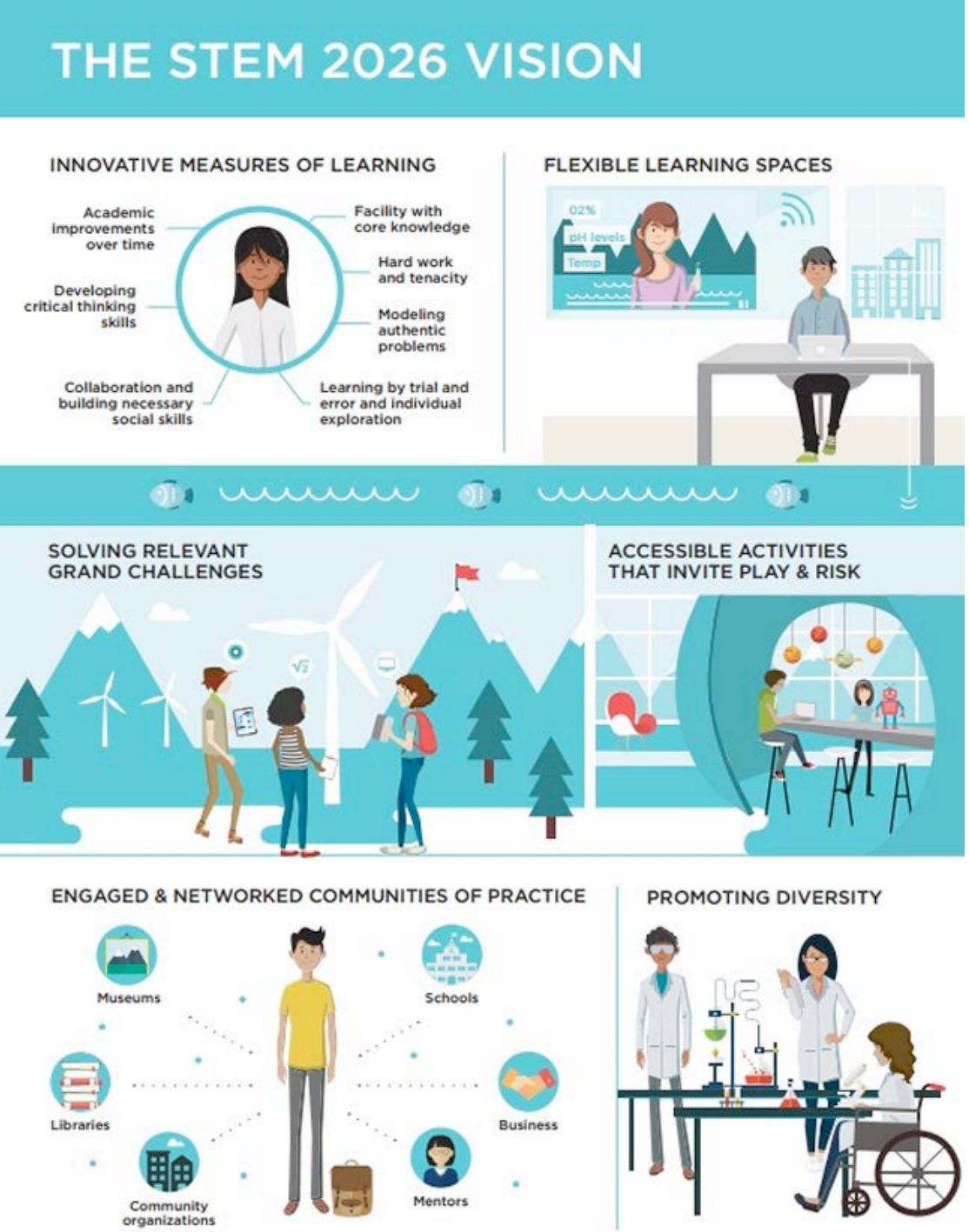


Why a "new vision"?

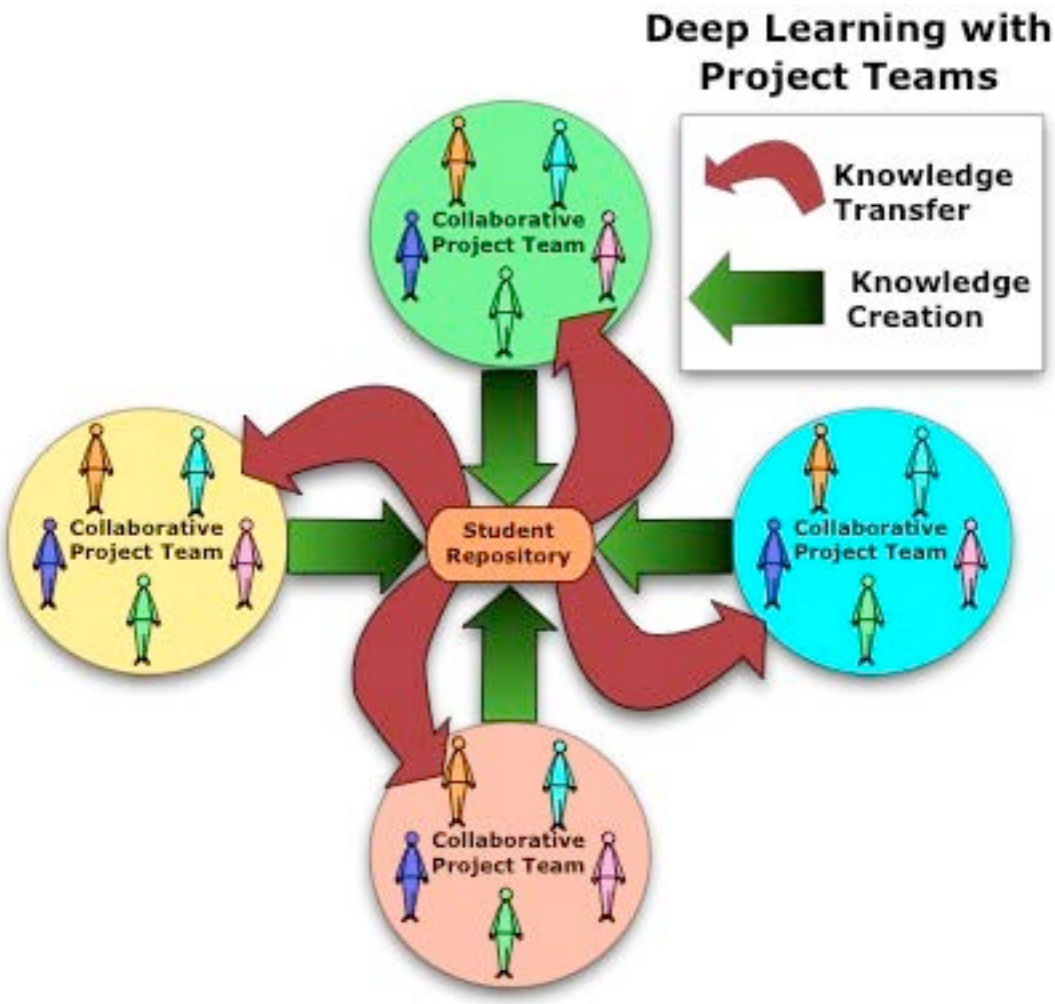
- NAEP math scores low for minority students (8th grade)
- STEM learning accessible to honors students (Californians Dedicated to Education Foundation, 2014)
- STEM learning is stovepiped (Volmert et al., 2013)
- ESSA: Competitive preference for STEM
- How to **integrate** STEM?

(AIR,2016)

How to Improve Learning?

1. Recruit more talented people;
2. Improve the qualifications of teachers entering or already in the profession;
3. Improve the instructional methods that are implemented in classrooms.
4. Create open and shareable instructional products.
5. OER are shared instructional products

Hiebert & Morris, 2012; Morris & Hiebert, 2011



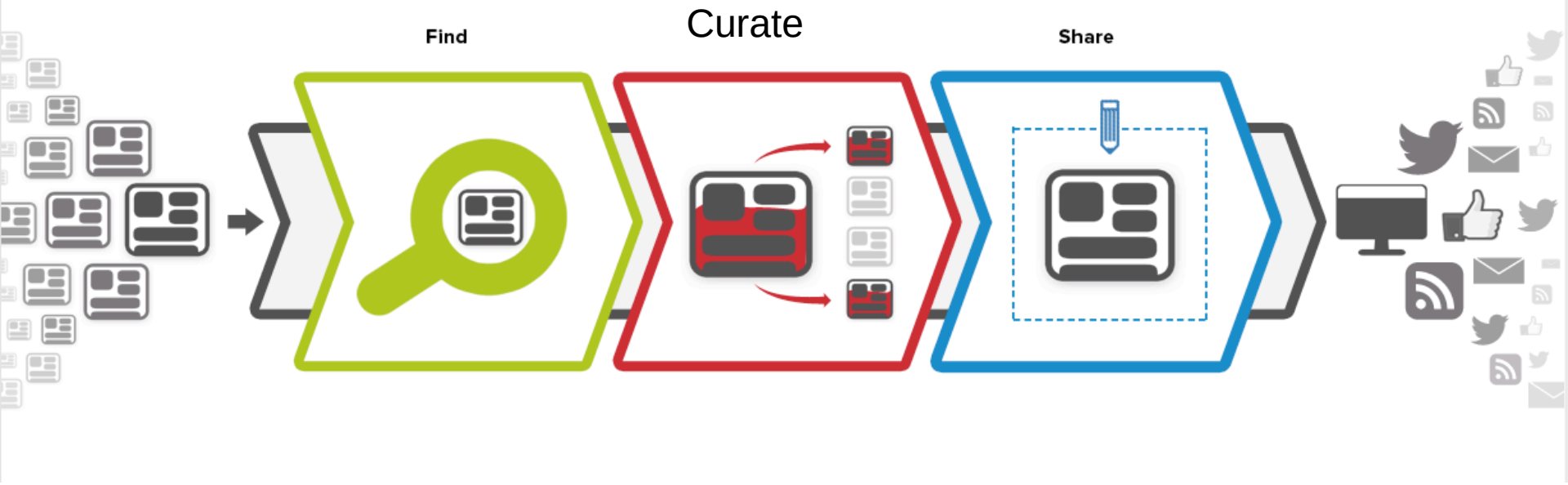
Students as Creators and Consumers of Content

- Debate/Forensics
- Drama
- Science Fair
- Odyssey of the Mind
- Project Based Learning
- Service Learning
- Online Collaborative Learning
- Book Clubs
- Newspaper/Yearbook
- Young Authors

There is strong evidence that the choice of **instructional materials** has large effects on student learning —**effects that rival in size those that are associated with differences in teacher effectiveness**

--Chingos & Whitehurst, 2012

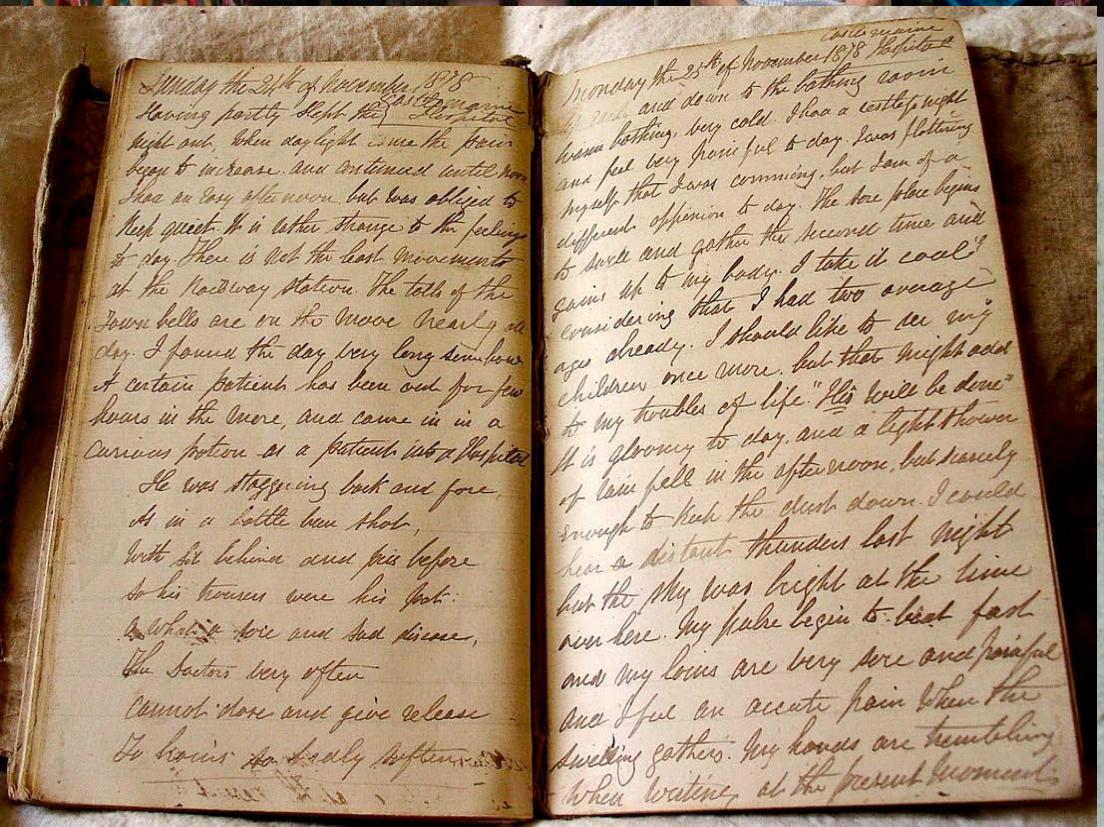
Are we collecting or…



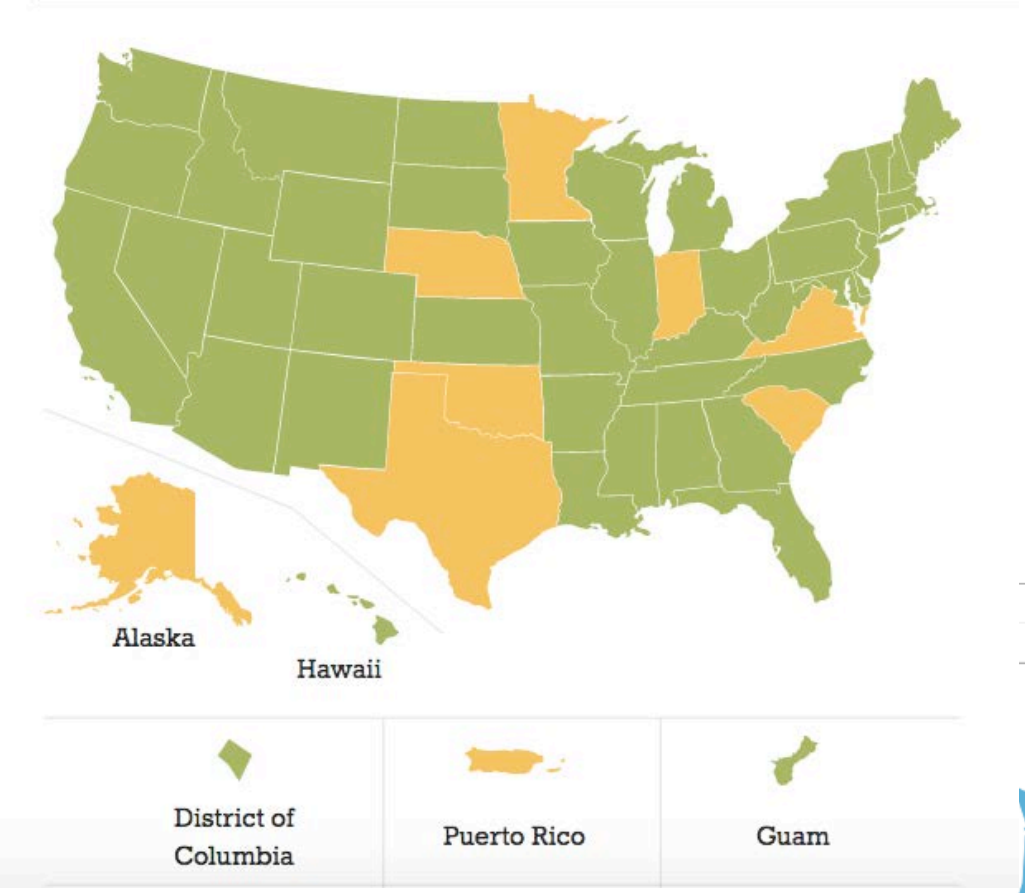
Are we curating?

HUMAN LIBRARY

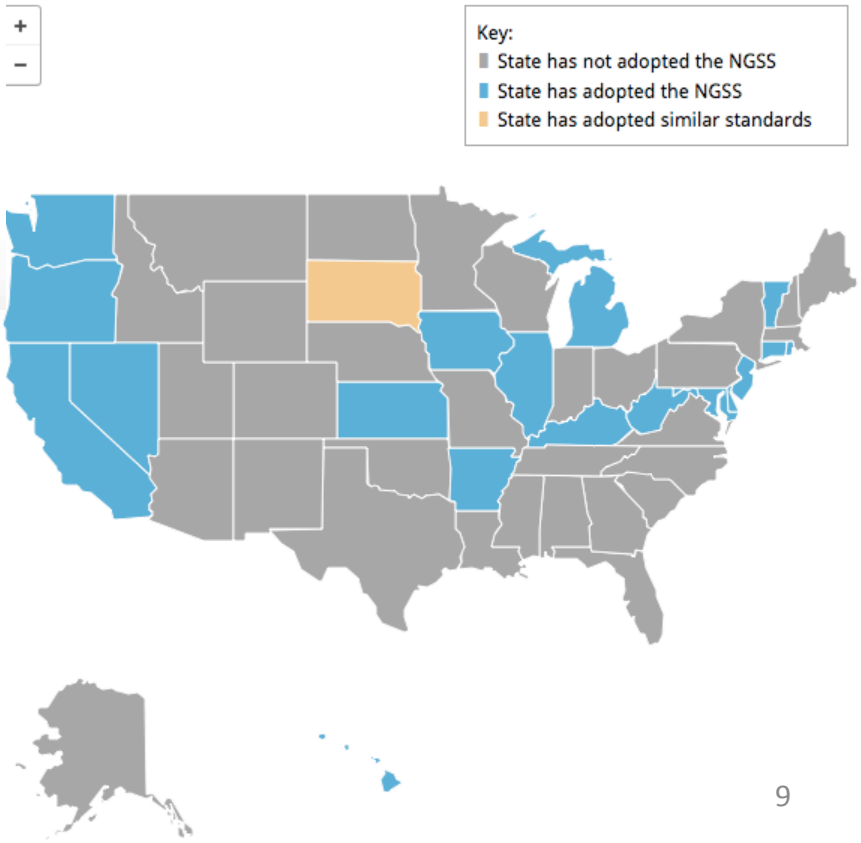
Reference Panel on Goniometer with Exotech measuring.



iDigBio for Making

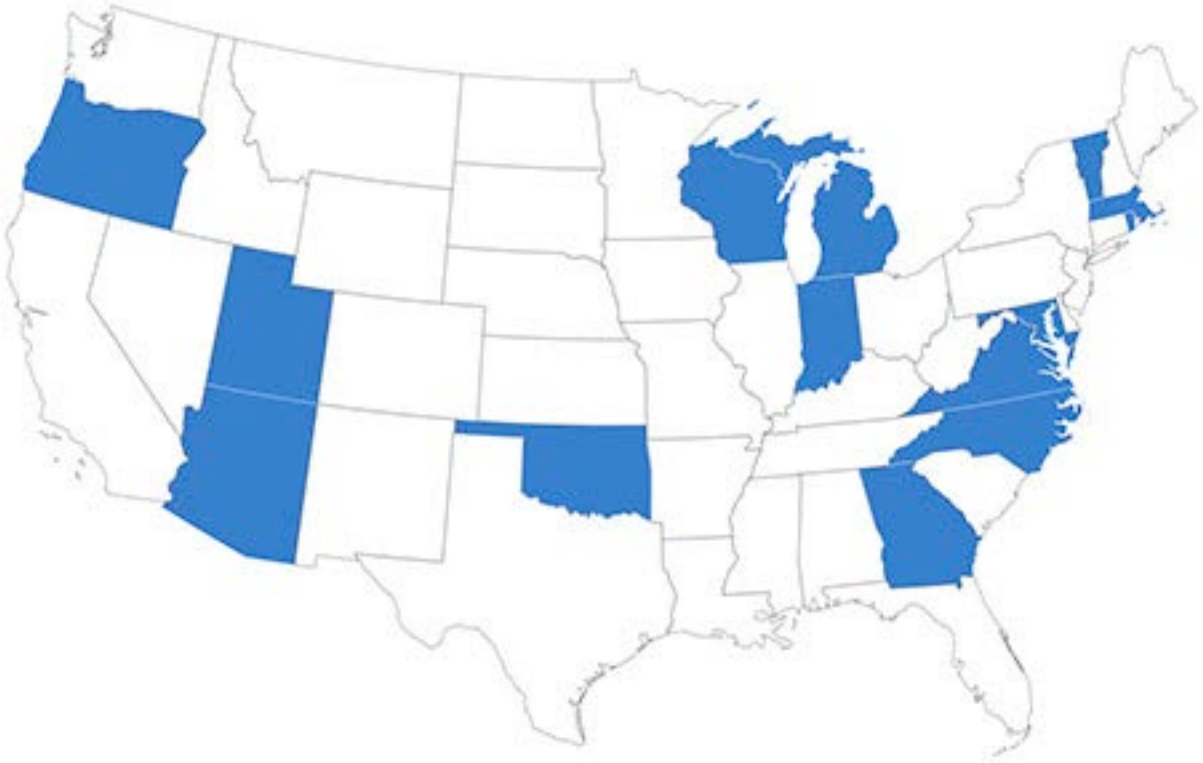


CCSS: 42 out of 50 states; 4 states with similar standards



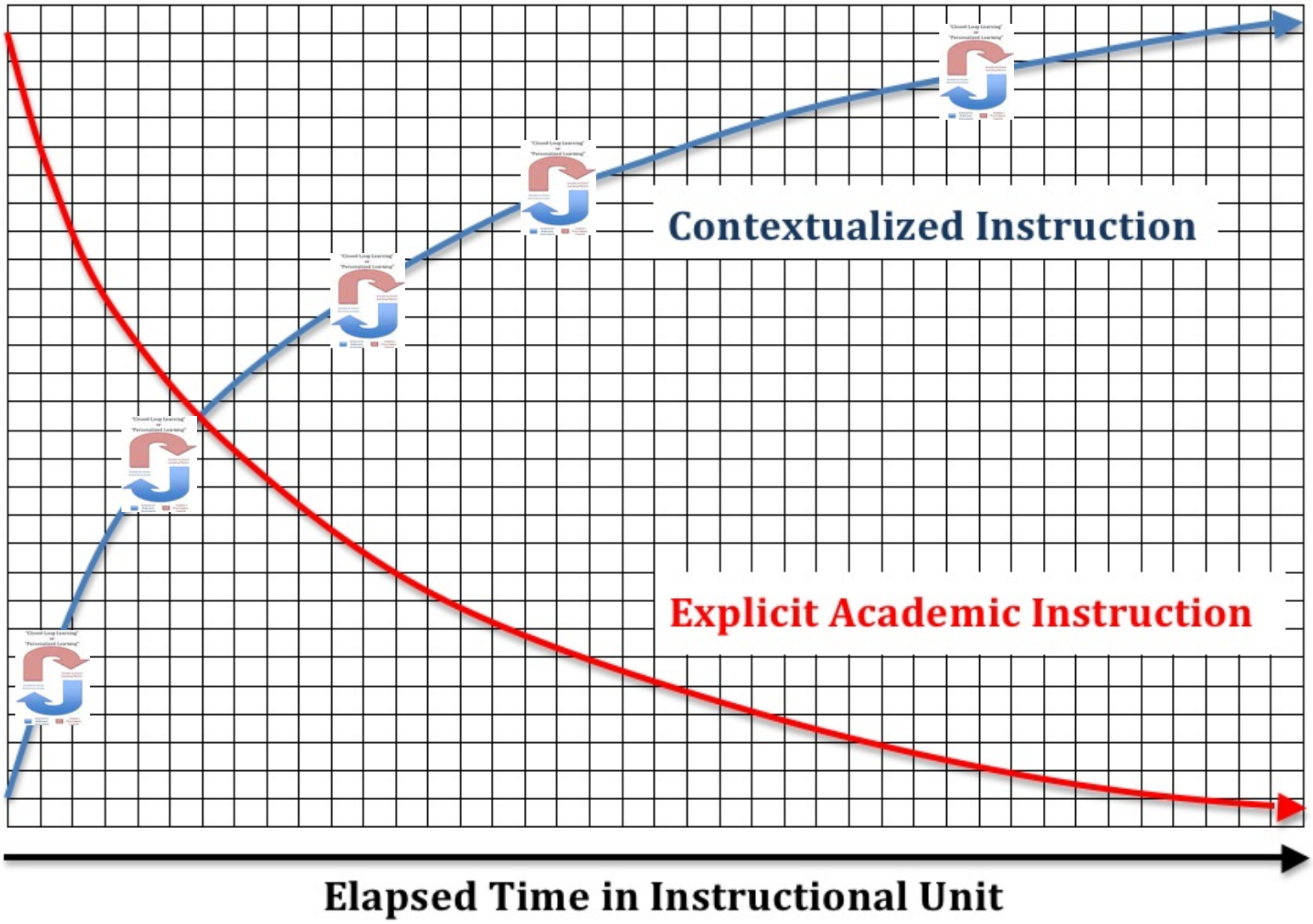
NGSS: 17 states with one state with similar standards

#GoOpen States as of March 2016



Source: http://www.edcentral.org/oerinstates/

Competence
A specific range of skill, knowledge
ability to do something successfull
being adequately or well qualified
the condition of being capable of
to meet demands, requirements



(THANKS to Don Manderson, Escambia (FL) Schools & IMS Global)

“When instructors and students select a object for use, they have three questions in mind:

Is it the right type?
Is it the best I can find?
and How should I use it?”

-Nesbit, Belfer, & Vargo, 2002

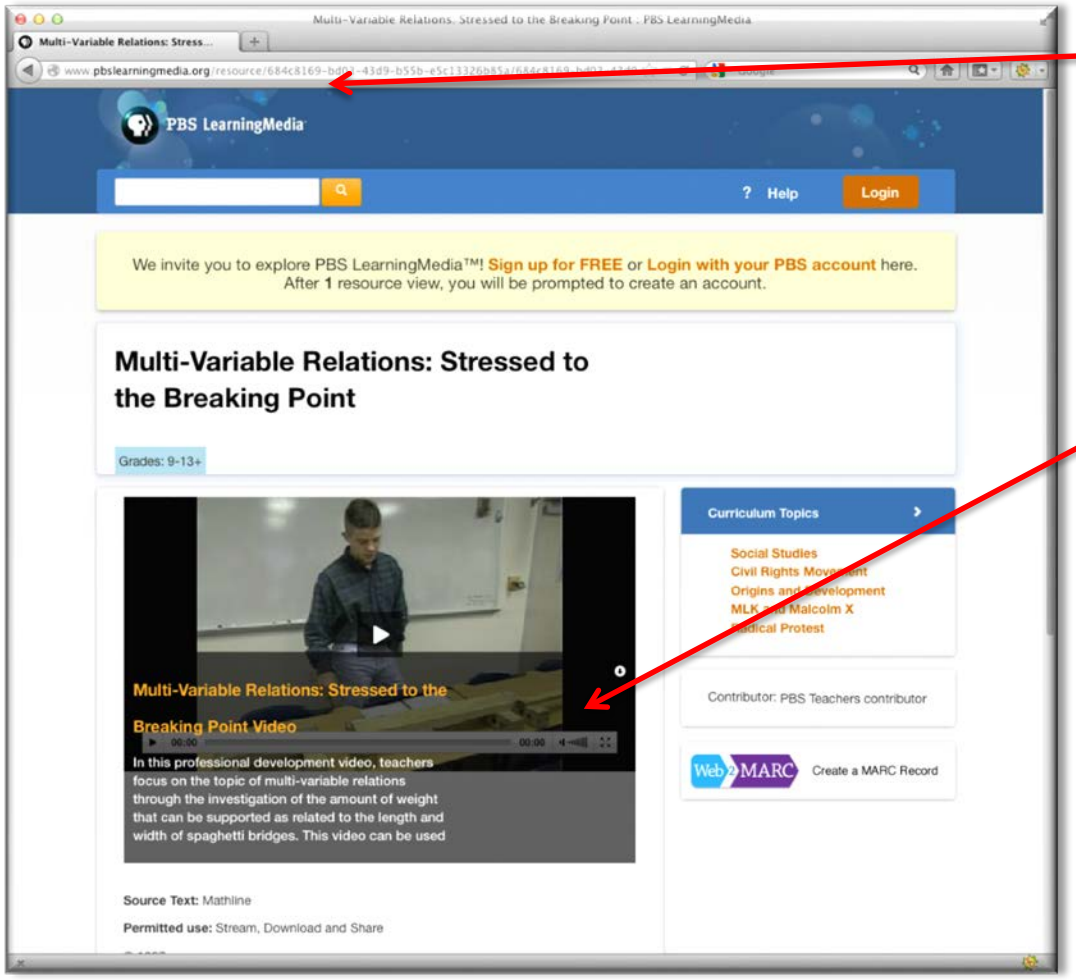
There can be one and only one measure of the quality of educational resources, no matter how they are licensed:

How much do students learn when using the materials?

Really.

David Wiley, Associate Professor, Brigham Young University & Co-Founder and CEO, Lumen Learning

Resource Granularity



Do you want to catalog the whole website?

or

Just an item on the website?

- Course or Class
- Class or Unit
- Unit or Lesson

Catalog for Fastest, Most Direct Access

Dublin Core Metadata Initiative

Making it easier to find information

IEEE LOM

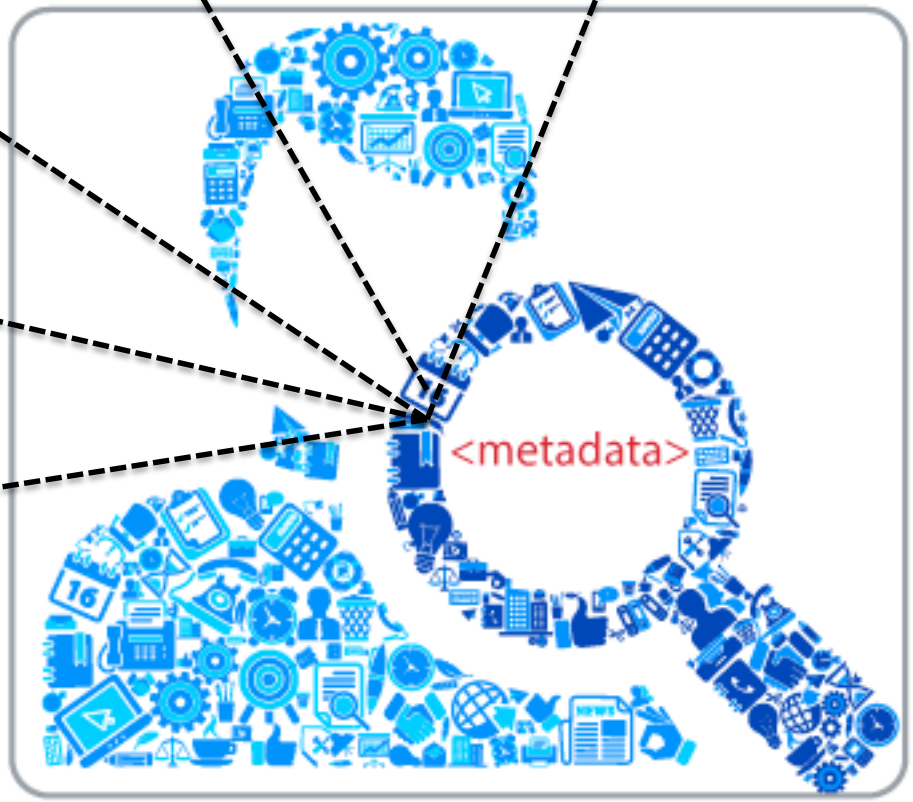
MARC 21

NSDL

LEARNING APPLICATION READINESS

LRMI

Learning Resource Metadata Initiative



Big Walnut
Local School District