



# iDigBio Resources as OER:

## Implementation Considerations for Design, Use, and Assessment

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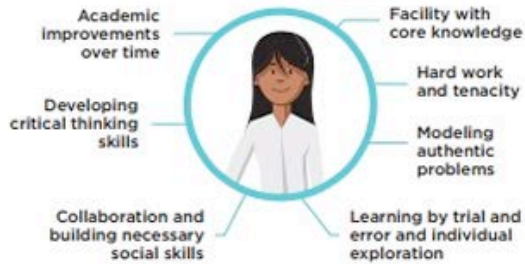
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# THE STEM 2026 VISION

## INNOVATIVE MEASURES OF LEARNING



## FLEXIBLE LEARNING SPACES



## SOLVING RELEVANT GRAND CHALLENGES



## ACCESSIBLE ACTIVITIES THAT INVITE PLAY & RISK



## ENGAGED & NETWORKED COMMUNITIES OF PRACTICE



## PROMOTING DIVERSITY



## Why a “new vision”?

- NAEP math scores low for minority students (8<sup>th</sup> 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?

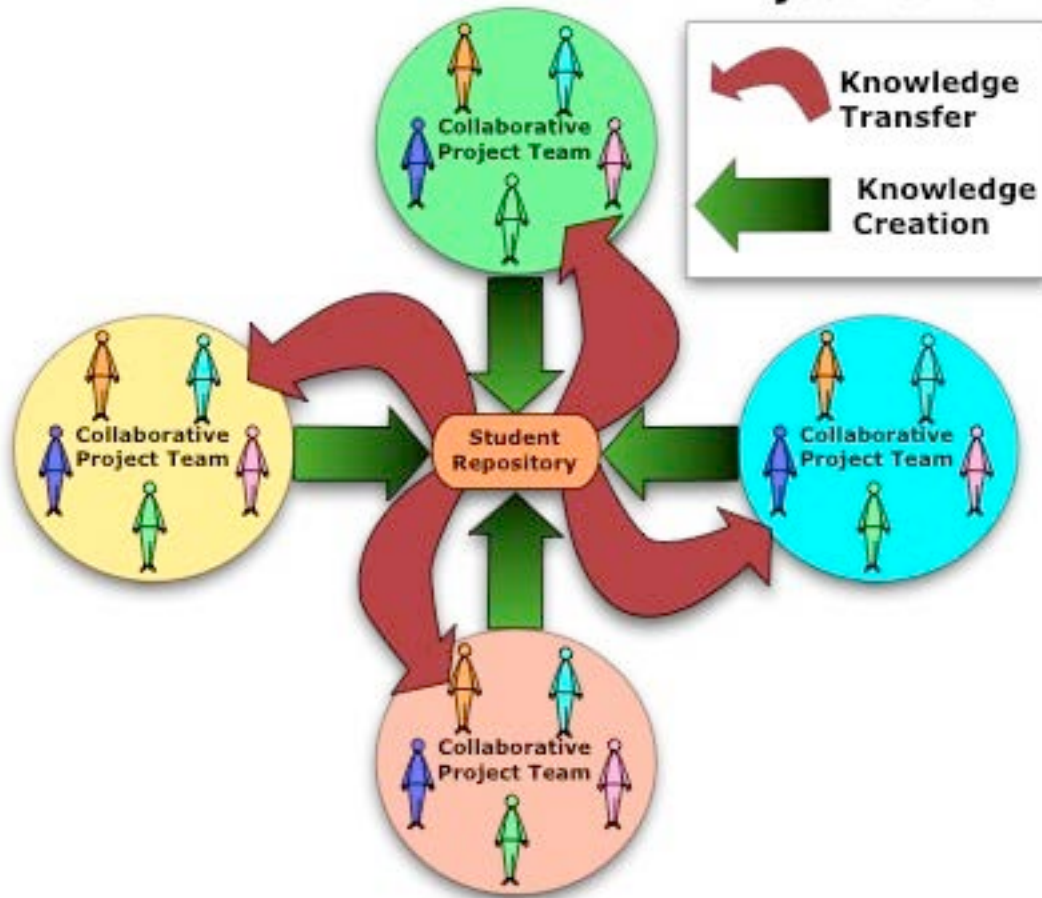
(AIR, 2016)<sub>2</sub>

# 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

## Students as Creators and Consumers of Content

### Deep Learning with Project Teams

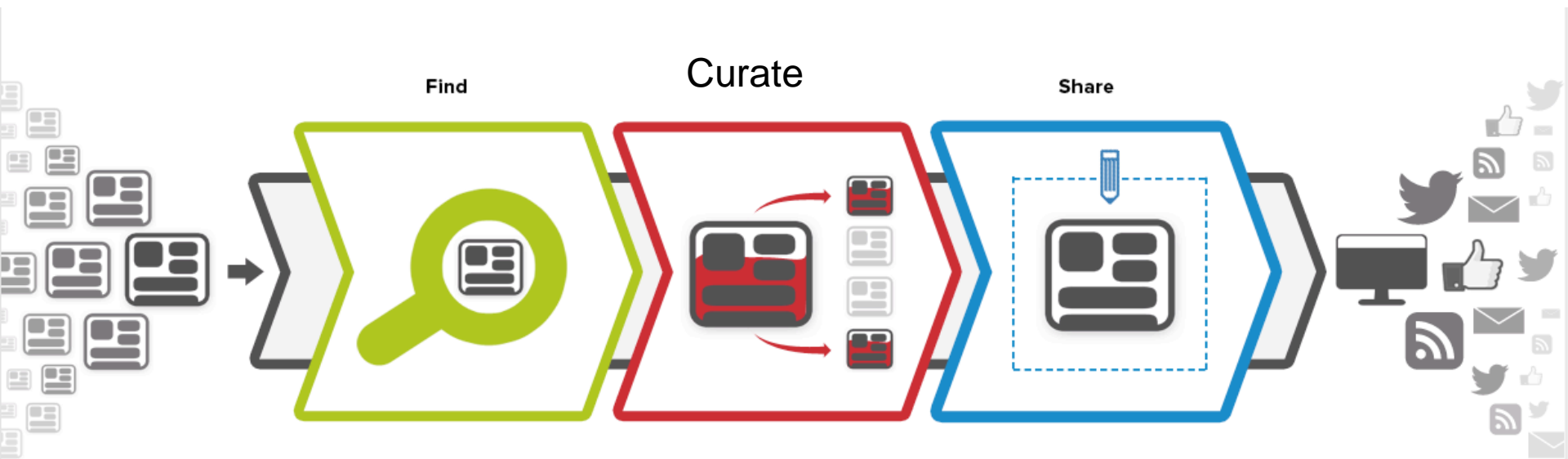


- Debate/Forensics
- Drama
- Science Fair
- Odyssey of the Mind
- Project Based Learning
- Service Learning
- Online Collaborative Learning
- Book Clubs
- Newspaper/Yearbook
- Young Authors

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.

*Monday the 24th of November 1878*  
*Having partly slept the night out, when day light came the brain began to increase, and continued until noon. She in day afternoon but was obliged to keep quiet. It is rather strange to the feelings to say there is not the best movements at the roadway station. The toll of the town bells are on the voice nearly all day. I found the day very long somehow. A certain patient has been out for few hours in the cure, and came in in a curious position as a patient not a patient. He was staggering back and fore, as in a bottle when shot, with his hands and feet before his trousers were his feet. What a sore and sad scene, the doctor very often cannot do and give release to his brain so badly softened.*

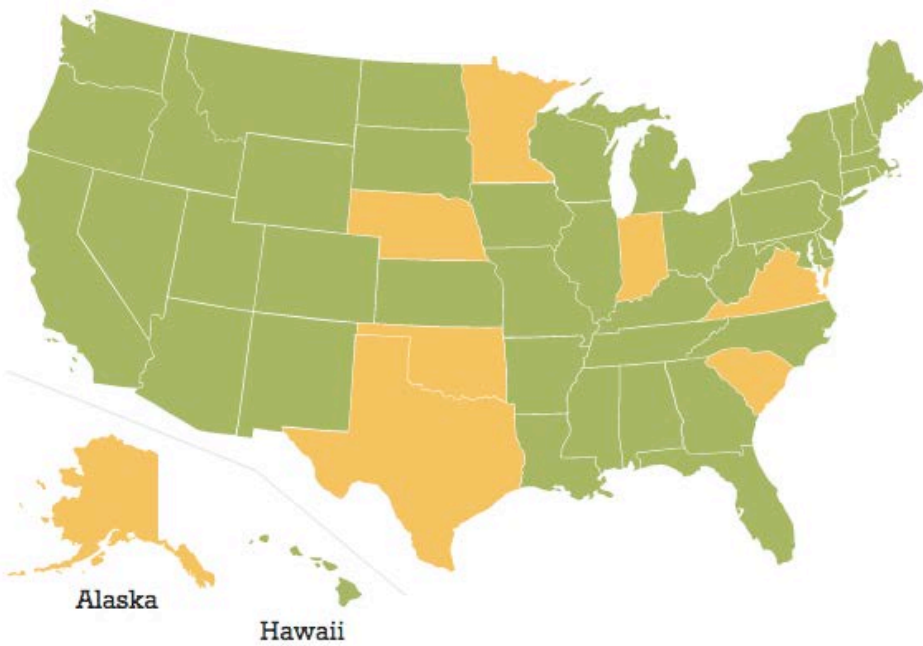
*Monday the 25th of November 1878*  
*and down to the bathing room. The water was very cold. I had a rather night and feel very gross full to day. I was flitting and myself that I was coming, but soon of a different opinion to day. The one place began to dance and gather the second time and gain up to my body. I take it cool. Considering that I had two average children once over, but their night and to my troubles of life. "His will be done" It is gloomy to day, and a light shower of rain fell in the afternoon, but scarcely enough to keep the dust down. I could hear a distant thunders last night but the sky was bright at the time over here. My feet begin to beat fast and my loins are very sore and painful and I feel an acute pain when the swelling gathers. My hands are trembling when writing, at the present moment.*



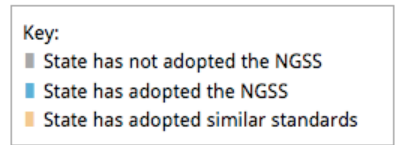
# iDigBio for Making







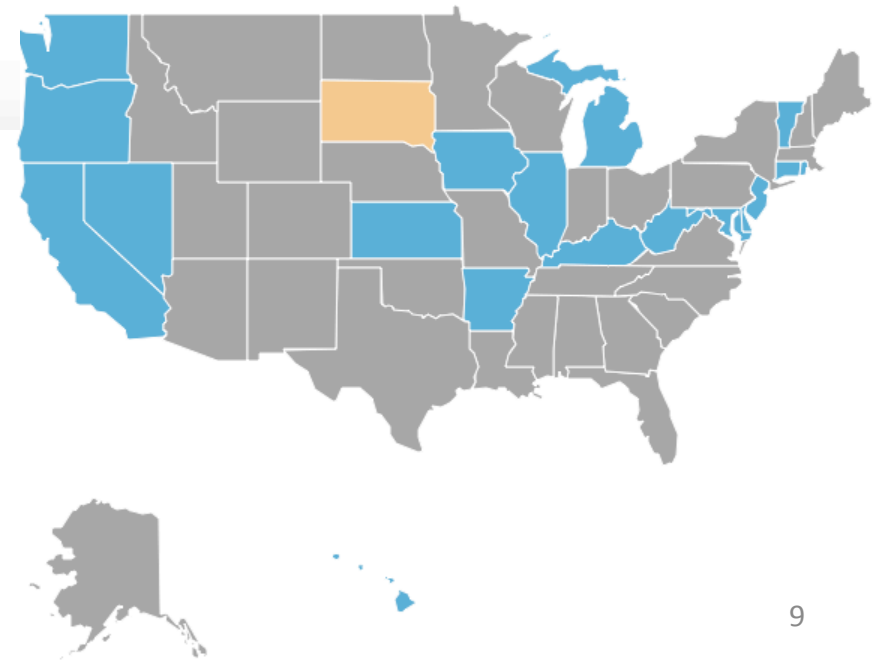
CCSS: 42 out of 50 states; 4 states with similar standards



District of Columbia

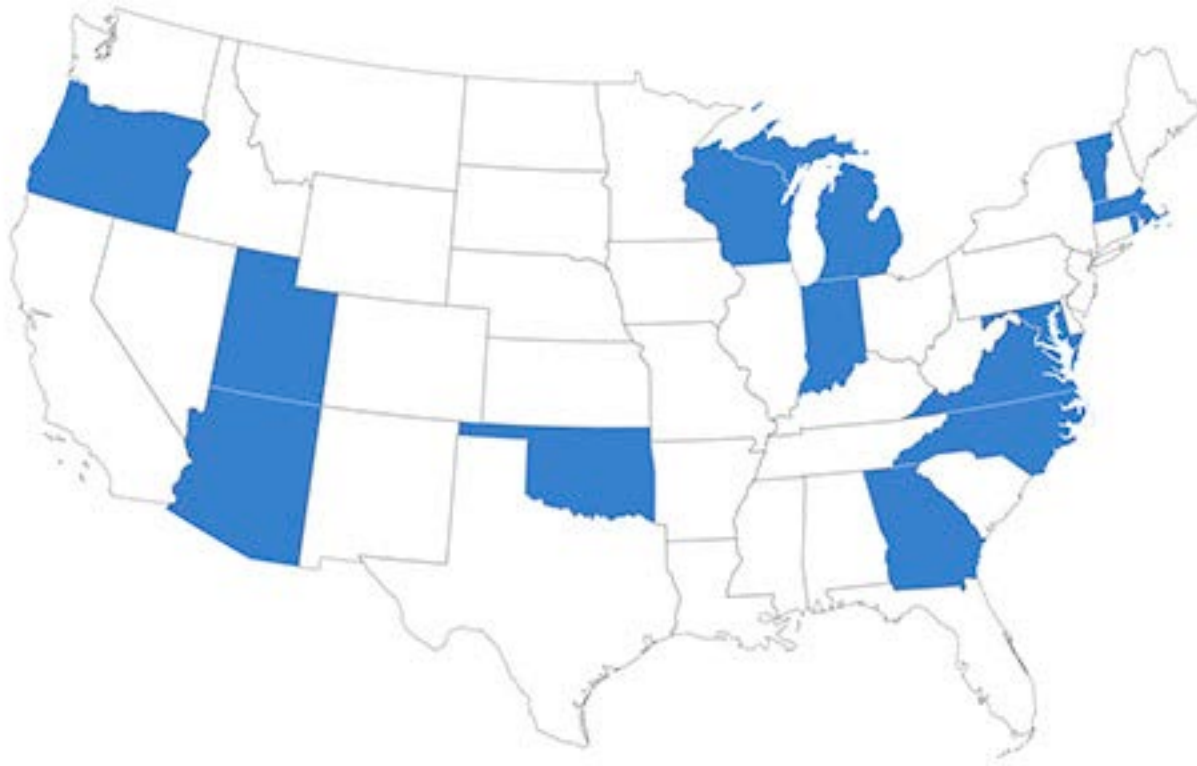
Puerto Rico

Guam



NGSS: 17 states with one state with similar standards

# #GoOpen States as of March 2016

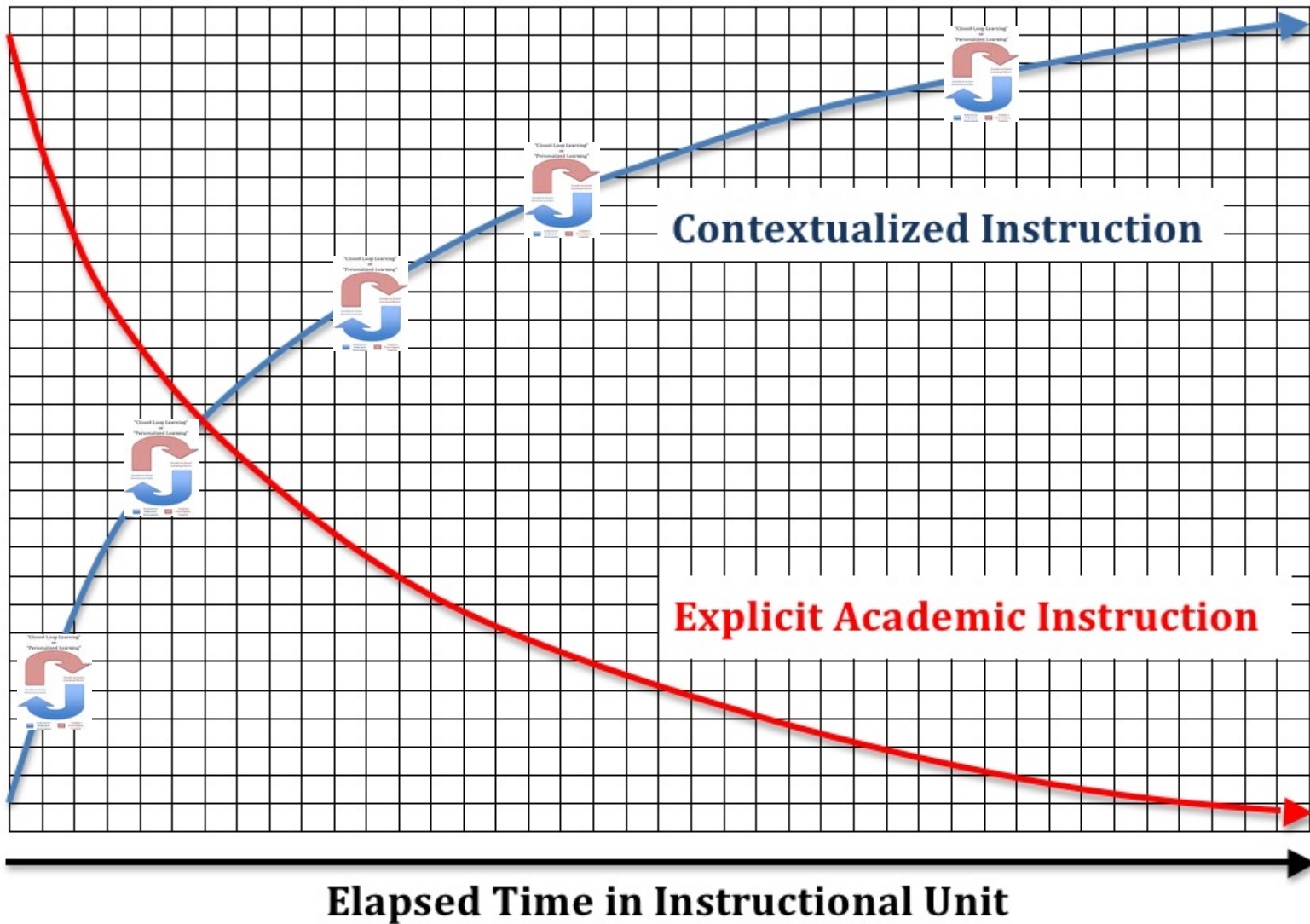


Source: <http://www.edcentral.org/oerinstates/>



# Competence

A specific range of skill, knowledge  
ability to do something successfully  
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?”*

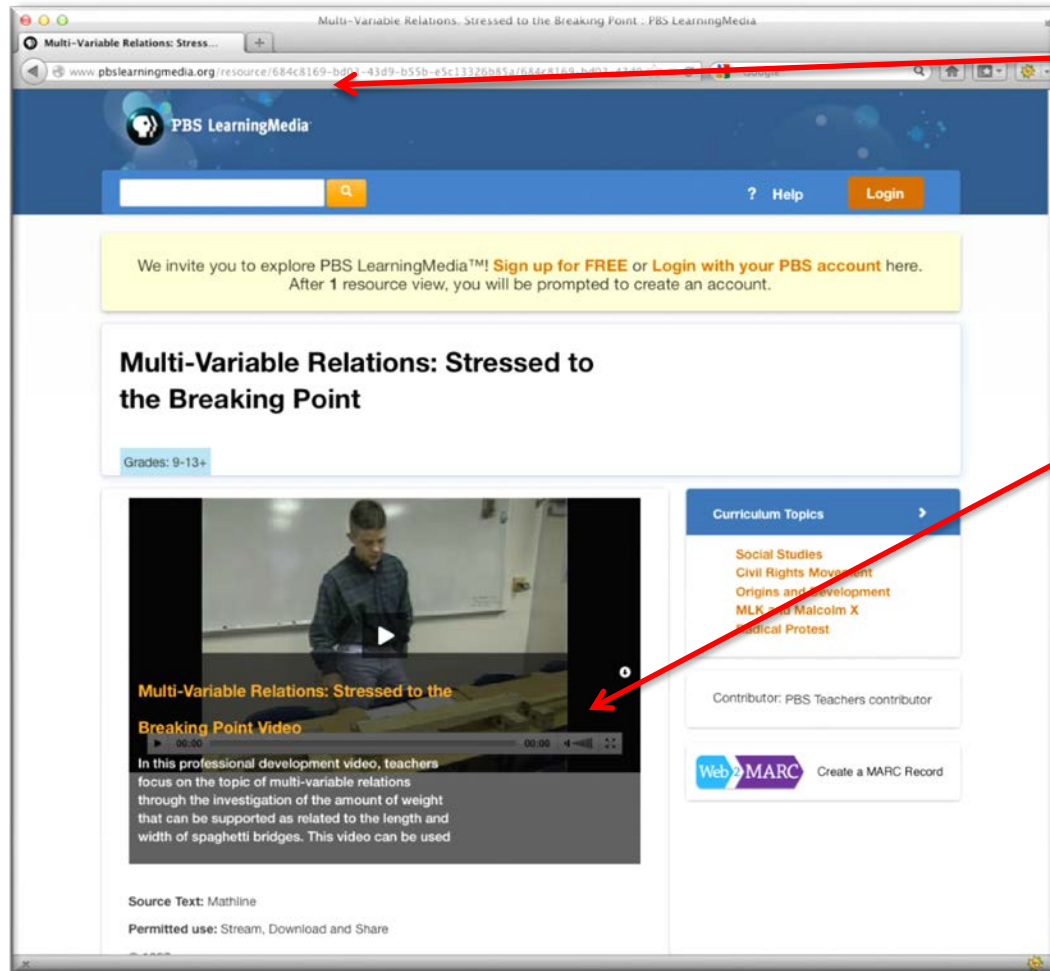
*-Nesbit, Belfer, & Vargo, 2002*

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



LEARNING APPLICATION READINESS



**LRMI**

Learning Resource  
Metadata Initiative

