

# Teaching With OER

**Deborah Dorsey, MS**

**Assistant Professor, Health, Exercise Science & Physical Education**

**Harford Community College**

# Objectives

- Define and provide examples of the “5 Rs” of OER.
- ~~Explain how the 5 Rs apply to the Open Content licensing model~~
- Recognize the importance of mapping learning objectives and assessments to OER learning content.
- Demonstrate how learner analytics can be leveraged to create a plan for continuous improvement.

# What's in an OER?

"Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge."

-The William and Flora Hewlett Foundation

# Retain

The right to make, own, and control **copies** of the content.

- Download
- Duplicate
- Store
- Manage



# Reuse

The right to use the content in a wide range of ways.

- in a class
- in a study group
- on a website
- in a video



- 1. Course Objective
- 2. Module Objectives
- 3. Overview
- 4. History & Sociology
  - 4.1. The Olympics, FIFA, and why we love sports
  - 4.2. The real importance of sports | Sean Adams
  - 4.3. Sport psychology - inside the mind of champion
- 5. Anatomy & Physiology
  - 5.1. Muscle Anatomy and Physiology
  - 5.2. Cardiovascular System
  - 5.3. Cardiac System During Exercise
  - 5.4. Respiratory System
  - 5.5. Citations
- 6. Assessment & Prescription
- 7. Sports Medicine
  - 7.1. Sports Injuries: Classification and Management
  - 7.2. Citations



## Muscle Anatomy and Physiology

CC Muscles, Part 1 - Muscle Cells: Crash Co... Watch later Share

**MUSCLES**

part 1

21 MUSCLE CELLS

This video thumbnail features a purple and pink background. On the left, there is a detailed illustration of muscle fibers with a pink needle-like structure. The word 'MUSCLES' is written in large, bold, white letters. Below it, 'part 1' is written in a smaller, italicized font. At the bottom, a pink banner contains the text '21 MUSCLE CELLS'. In the top right corner, there are icons for 'Watch later' and 'Share'.

CC Muscles, Part 2 - Organismal Level: Cras... Watch later Share

**MUSCLES**

part 2

22 ORGANISMAL LEVEL

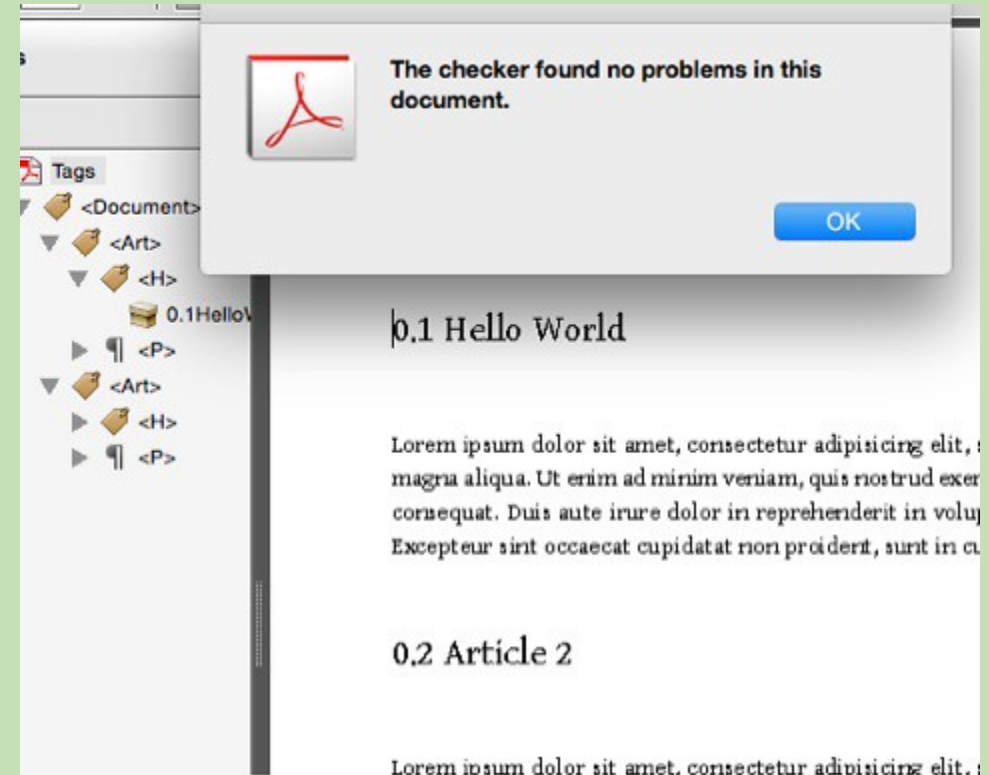
This video thumbnail features an orange and brown background. On the left, there is a stylized illustration of a human skeleton with red muscles overlaid. The word 'MUSCLES' is written in large, bold, white letters. Below it, 'part 2' is written in a smaller, italicized font. At the bottom, a pink banner contains the text '22 ORGANISMAL LEVEL'. In the top right corner, there are icons for 'Watch later' and 'Share'.

# Revise

The right to adapt, adjust, modify, or alter the content itself

- Translate the content into another language
- Make content accessible

[The TEACH Act](#) & [ADA Section 508](#)



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# Fair Use & TEACH Act

## CHAPTER 1

### Introduction

#### Key Terms

Energy balance  
Positive energy balance  
Negative energy balance  
Nutrition knowledge  
Dietary goals  
Food group models  
Dietary reference values (DRV)  
Guideline daily amount (GDA)  
Dietary extremism  
Practical food skills  
Travel fatigue  
Body composition  
Estimated average requirement (EAR)  
Performance analysis techniques

## CHAPTER 1

### Introduction

#### Key Terms

- Energy balance
- Positive energy balance
- Negative energy balance
- Nutrition knowledge Dietary goals
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- Guideline daily amount (GDA)
- Dietary extremism
- Practical food skills
- Travel fatigue
- Body composition
- Estimated average requirement (EAR)
- Performance analysis techniques
- Physical demands of exercise
- Preceding diet
- Training adaptations

#### The importance of an adequate diet for athletes

It has been clearly demonstrated that the nutritional composition and adequacy of an athlete's diet has an impact on performance and overall well-being. The consumption of food and fluid as fuel and





## Nutrition for Sport and Exercise : A Practical Guide.

Chapter 1 provides an overview of sports nutrition.



### Citations

*Biomechanics*. Castalia Media (Firm), 2016.*EBSCOhost*, [search.ebscohost.com/login.aspx?direct=true&db=cat05949a&AN=hccl.962803584&site=eds-live](https://search.ebscohost.com/login.aspx?direct=true&db=cat05949a&AN=hccl.962803584&site=eds-live). is licensed under CC BY-SA 4.0

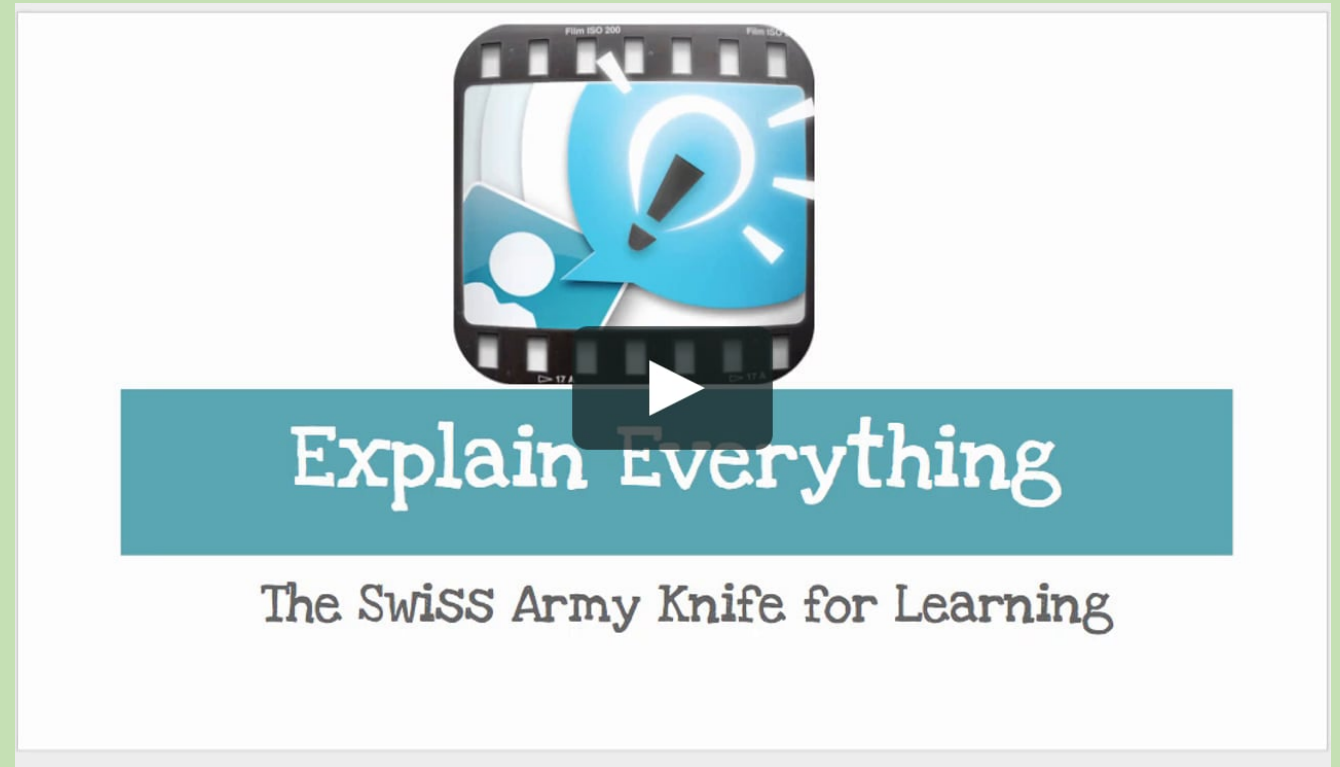
Daries, Hayley.*Nutrition for Sport and Exercise : A Practical Guide*. Wiley-Blackwell, 2012.*EBSCOhost*, [search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=475810&site=eds-live](https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=475810&site=eds-live). is licensed under CC BY-NC-ND 4.0

# Remix

The right to combine the original or revised content with other material to create something new.

- Digital mashups
- Authoring Tools

**Be careful**



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# Softchalk

## Communities and Populations

### Communities and Populations

1 of 4 >

#### What is community?

A common definition of community emerged as a group of people with diverse characteristics who are linked by social ties, share common perspectives, and engage in joint action in geographical locations or settings.

#### What is population health?

Population health is defined as "the health outcomes of a group of individuals, including the distribution of such outcomes within the group." It is comprised of three main components: health outcomes, health determinants, and policies. Population health outcomes are the product of multiple "inputs" or determinants of health, including policies, clinical care, public health, genetics, behaviors (e.g., smoking, diet, and treatment adherence), social factors (e.g., employment, education, and poverty), environmental factors (e.g., occupational, food, and water safety), and the distribution of disparities in the population. Thus, population health can be thought of as the science of analyzing the inputs and outputs of the overall health and well-being of a population and using this knowledge to produce desirable population outcomes. A population's health can be analyzed at various geographic levels (e.g., countries, states, counties, or cities), including health disparities based on race or ethnicity, income level, or education level.



The image shows a YouTube video player interface. At the top, it says "What is population health?" with a play button icon. To the right are "Watch later" and "Share" options. The main content is a blue background with five stylized human figures of different colors and features: a purple figure, a yellow figure with glasses and a green dress, a yellow figure with a blue cap and a play button on its chest, a red figure, and a pink figure with a blue skirt.

# Citations



Attribution  
(BY)

## Citations

Hawkins, Robert P et al. "Understanding tailoring in communicating about health" *Health education research* vol. 23,3 (2008): 454-66.

Wakefield, Melanie A et al. "Use of mass media campaigns to change health behaviour" *Lancet (London, England)* vol. 376,9748 (2010): 1261-71.

Medicaid. "Public Health and Population Health 101." Sage Publishers, 16 Oct. 2003.

Active For Life (2011). *Active For Life Public Service Announcement (PSA)*. [video] Available at: <https://youtu.be/2syj1bAM0vc> [Accessed 18 Nov. 2018].

Children's Hospital of Colorado (2017). *What is Population Health?* [video] Available at: <https://youtu.be/AtBYryLaveE> [Accessed 18 Nov. 2018].

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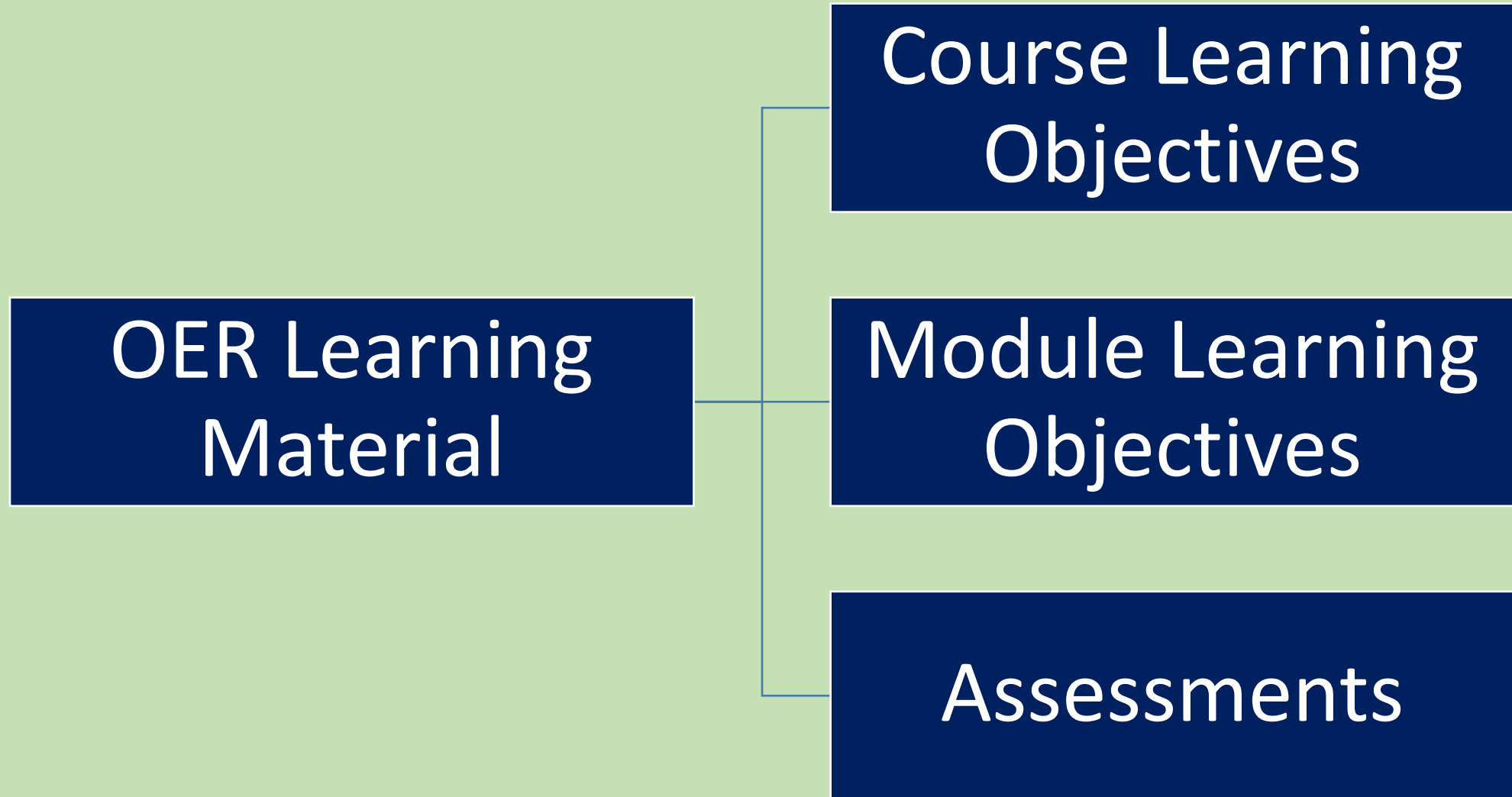
[https://cdn.pixabay.com/photo/2013/07/12/17/50/cassette-152550\\_960\\_720.png](https://cdn.pixabay.com/photo/2013/07/12/17/50/cassette-152550_960_720.png)

# Learning Analytics

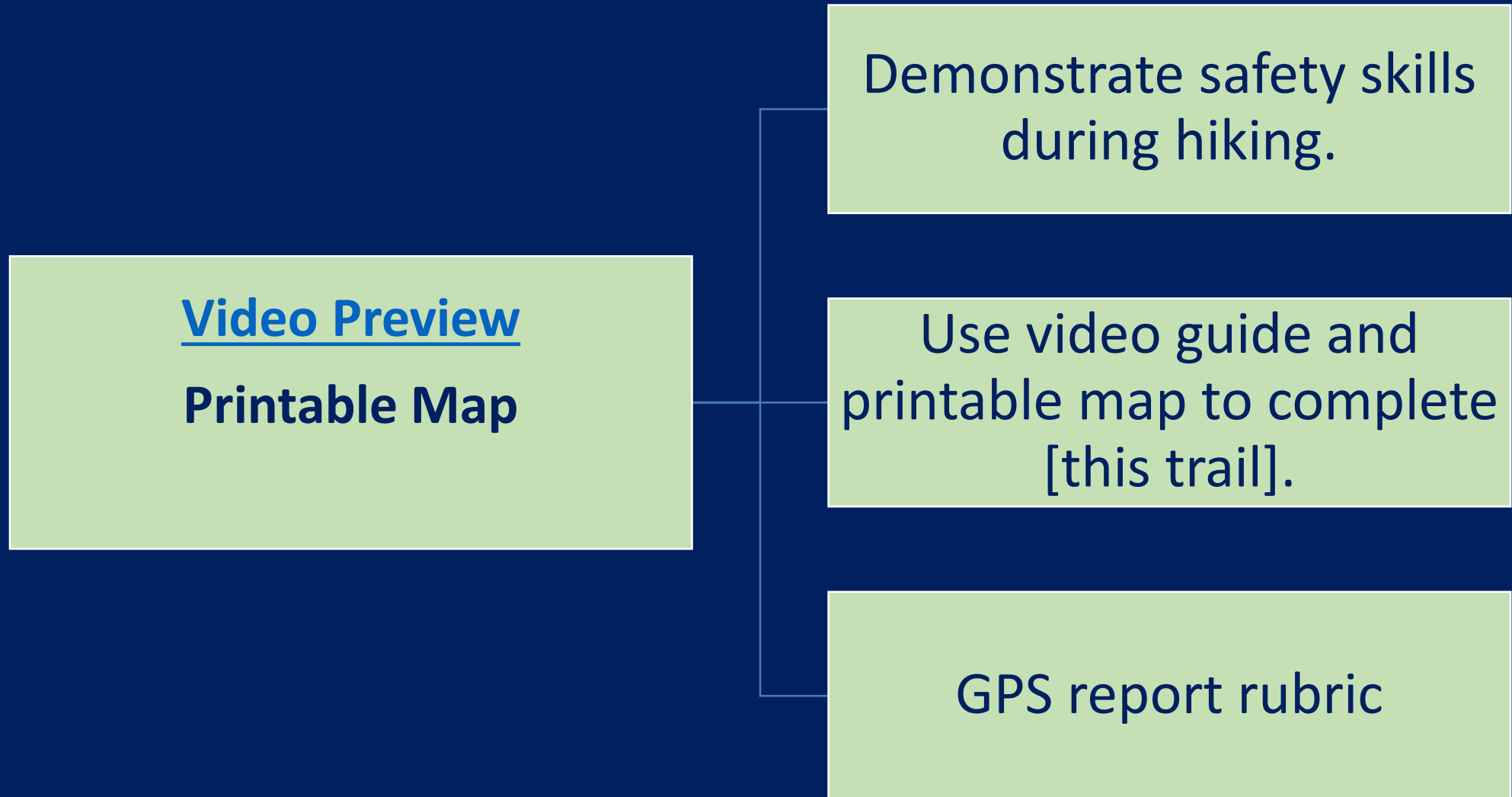
“Online learning systems have the ability to capture learner behaviors and can operate on the data to provide a variety of stakeholders with feedback to improve teaching, learning, and educational decision making.”

-Office of Education Technology,  
U.S. Department of Education

# From the Very Beginning: Alignment



# Example of Alignment: PE 130 Hiking













# OER Learning Material: REMIX



# Assessment

Criteria	Did Not Meet Requirement	Met Requirement
MMF link is viewable  Weight 22.00%	0 %	100 %
MMF shows location  Weight 2.00%	0 %	100 %
MMF shows correct trail navigation  Weight 24.00%	0 %	100 %
MMF timestamp matches mobile checklist timestamp  Weight 2.00%	0 %	100 %
Dropbox link is viewable  Weight 44.00%	0 %	100 %
Heart rate stated in video  Weight 2.00%	0 %	100 %
Video footage matched MMF location  Weight 2.00%	0 %	100 %
Video shows visible proof that student is exercising  Weight 2.00%	0 %	100 %

# Learning Behavior Data from the LMS

- Was the content viewed?
- How many times (hits)?
- How many minutes were spent?

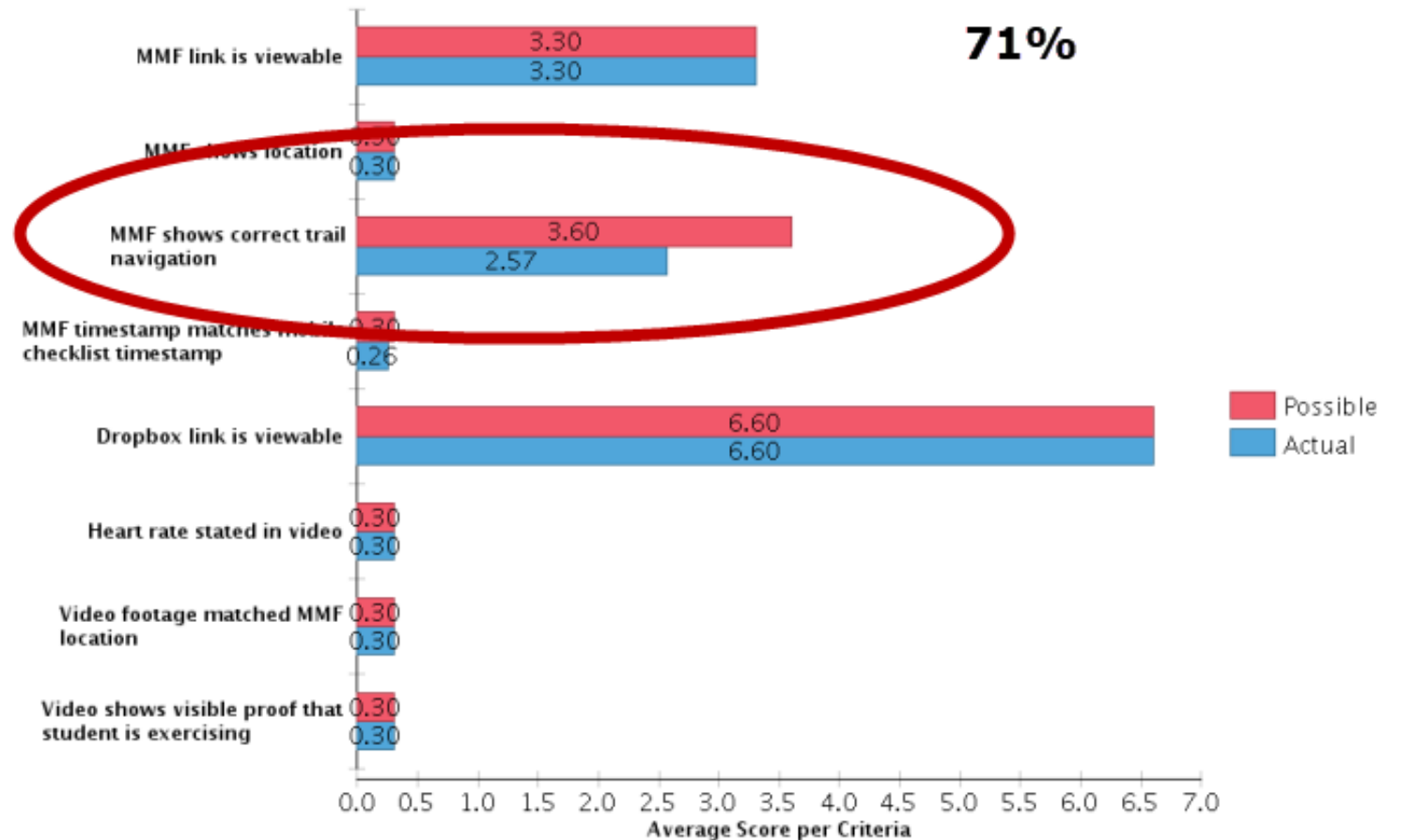
Item Name And Type	Total Time Spent in Hours	Number of Times Accessed	Initial Access Date/Time
Checklist 4: Susquehanna State Park Test	0.02	1	Jul 27, 2019, 1:17 PM
Course Orientation & Syllabus Content Folder	0.00	1	Jul 22, 2019, 4:20 PM
Google maps to trailhead (Deer Creek parking lot) Item	0.25	1	Jul 27, 2019, 1:01 PM
Graded Work Content Folder	0.05	6	Jul 27, 2019, 1:18 PM
Links to Hike 4: Susquehanna State Park Assignment	0.04	1	Jul 27, 2019, 11:03 PM
Mobile Checklist Content Folder	0.00	1	Jul 27, 2019, 1:17 PM
Nutrition and Hydration Content Folder	0.11	2	Jul 27, 2019, 11:07 PM
Outline of Course Weeks Content Folder	0.00	1	Jul 22, 2019, 4:20 PM
Quiz Nutrition & Hydration Test	0.03	4	Jul 27, 2019, 11:06 PM
Susquehanna State Park Content Folder	0.76	5	Jul 22, 2019, 4:20 PM
Week 4 Content Folder	0.01	9	Jul 22, 2019, 4:20 PM
Week 4 Content Folder	0.00	7	Jul 22, 2019, 4:20 PM

# Assessment Data

## Rubric Statistics Report

### Rubric Analysis

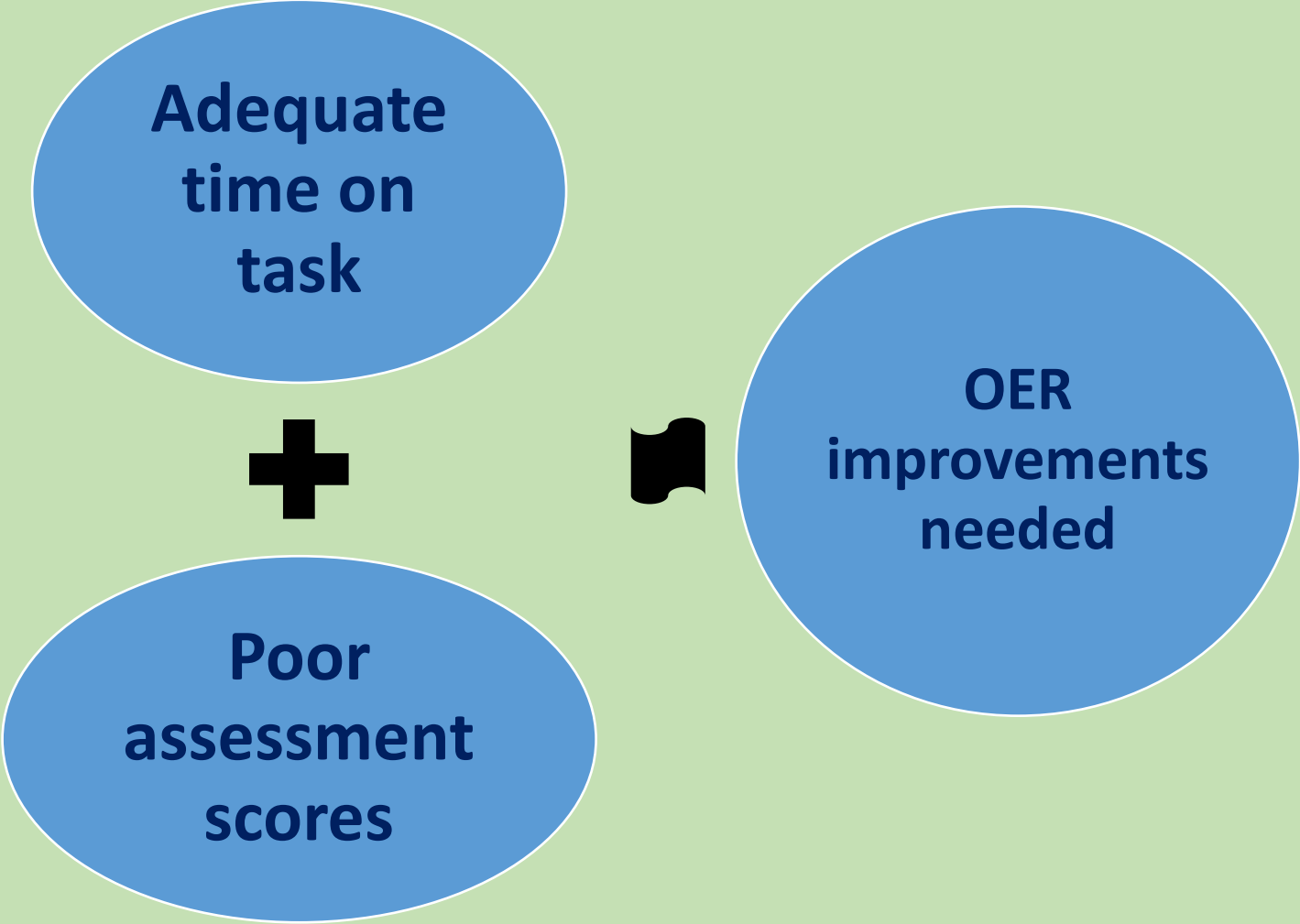
Link Assignment



# Learning Behavior Analytics

Is there a relationship between “time on task”, i.e., engagement with OER material and assessment outcomes?

# Possible Interpretation



# Student Feedback

- Stuff you cannot control (reliable wifi, access to printer)
- Pointed questions about perceived quality of learning material

# Examples of Adaptable Survey Questions

Cuttler, Carrie. "Students Use and Perceptions of the Relevance and Quality of Open Textbooks Compared to Traditional Textbooks in Online and Traditional Classroom Environments." *Psychology Learning & Teaching*, vol. 18, no. 1, 2018, pp. 65–83., doi:10.1177/1475725718811300.

<https://journals.sagepub.com/doi/pdf/10.1177/1475725718811300>

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How much do the figures help you understand the text?  
How easy are the figures to understand?  
How easy are the tables to understand?  
How relevant are the photographs in relation to the material?  
How well do the research examples explain the material?  
How much do the research examples help you understand the material?  
How well do the everyday life examples explain the material?  
How much do the everyday life examples help you understand the material?  
How relevant are the everyday life examples?  
How adequate is the number of study aids?  
How helpful are the study aids?  
How visually appealing is the textbook?  
How engaging/interesting is the writing?  
How understandable/clear is the writing?  
How helpful is the textbook overall?

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# Frameworks Continuous Improvement

- Bodily, Robert, et. al. “The RISE Framework: Using Learning Analytics to Automatically Identify Open Educational Resources for Continuous Improvement.” *International Review of Research in Open and Distributed Learning*, vol. 18, no. 2, 2017.  
<http://www.irrodl.org/index.php/irrodl/article/view/2952/4085>
- “Education Quality and Continuous Improvement Framework: Research, Resources, and Support for Continuous Improvement Planning.” *Vermont Agency of Education*, 9 Mar. 2018.  
<https://education.vermont.gov/sites/aoe/files/documents/edu-education-quality-and-continuous-improvement-framework.pdf>

# Ask me questions!

**Debbie Dorsey**

443-412-2064

[ddorsey@harford.edu](mailto:ddorsey@harford.edu)