

# Defining quality learning in self-paced eLearning: Practices and challenges

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Forgard, K. G. (2021). "Defining quality learning in self-paced eLearning: Practices and challenges". OLC Innovate 2021

# Session Interactive Component



<http://bit.ly/frogOLC2021>

- **Use for session activities**
- **Use to ask questions**
- **Begin with a simple introduction**



# Create a definition of self-paced eLearning (SPeL)



Apply this definition to design parameters when creating self-paced elearning (SPeL).



[bit.ly/frogOLC2021](https://bit.ly/frogOLC2021)



Nomadseifer CC BY-SA 3.0

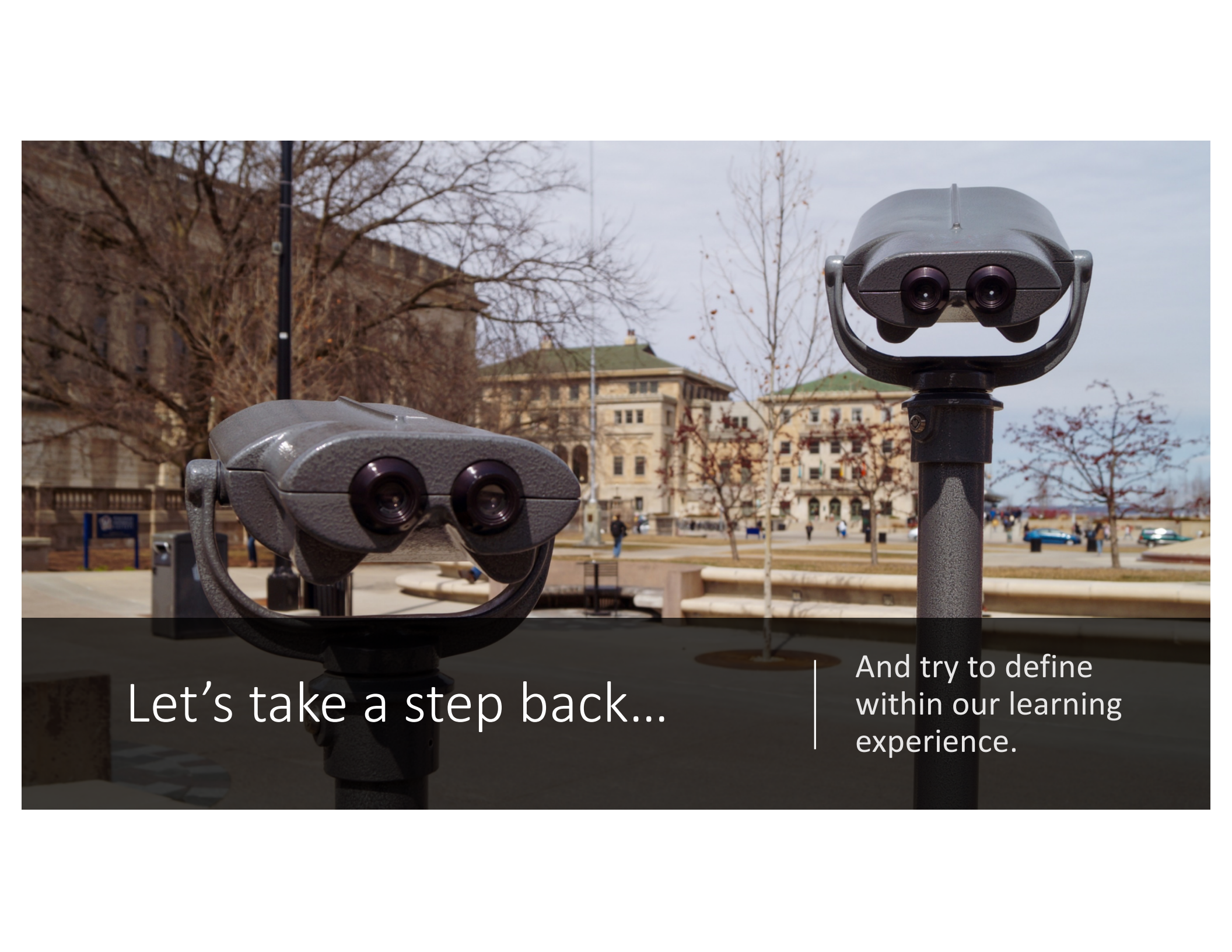
# Self-paced eLearning in Hawaii

Hello. My name is Ali. I am here to teach you about Self-paced eLearning.

Please read through the next 25 slides and take the test at the end to earn a badge.



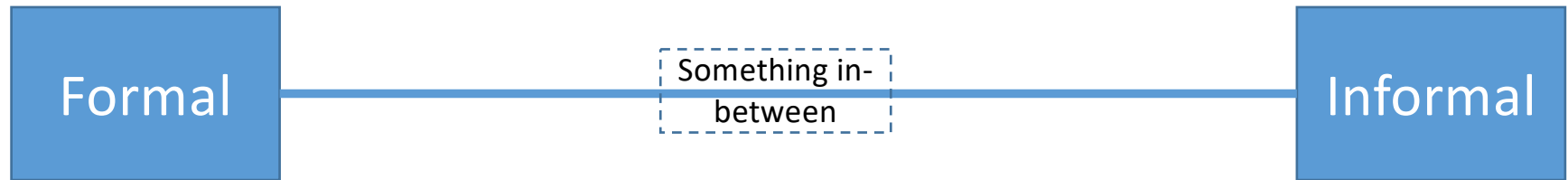


A photograph of two coin-operated binocular viewers in a park. The viewer on the left is in the foreground, slightly out of focus, while the one on the right is further back and more in focus. Both are mounted on black poles. The background shows a large, multi-story building with a green roof, bare trees, and a paved area with some people in the distance. The sky is overcast.

Let's take a step back...

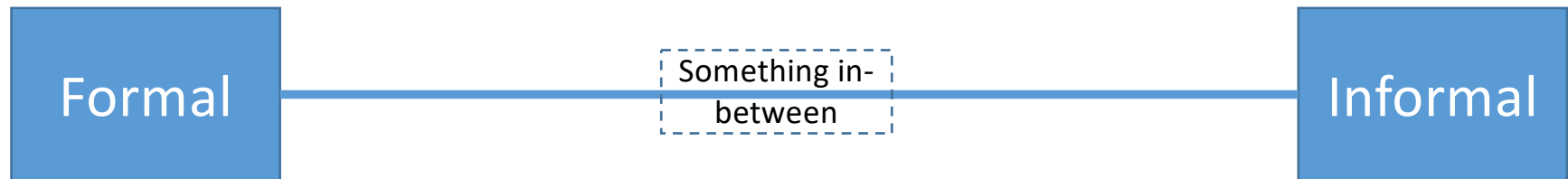
And try to define  
within our learning  
experience.

Definine





**Activity:** Establishing how SPeL fits into a spectrum between formal and informal learning



Using the sheet to type different types of eLearning and categorize them between formal or informal.

QUESTION: *Can we create a threshold of SPeL from this list?*



LINK

# Establishing evaluation criteria: A simple rubric

- **Effectiveness** – Are there clear learning goals that learners can achieve?
- **Efficiency** – Can the learning goals be achieved in a timely manner?
- **Appeal** – Are the instructional materials interesting and useable?



Davidson-Shivers, et al. (2018), Reigeluth (1999)



# A Deeper Evaluation: Looking at affordances that may support SPeL

- Interactivity
- Adaptability
- Feedback
- Choice
- Nonlinear access
- Linked representations

Challenge  
to SPeL

- Open-ended learner input
- Communication with other people

*How People Learn II* (2018) influenced by Mayer's work



Checking our  
notes for  
questions...





Let's look at some other examples.

- Review the 4 instructional examples
- Comment on shared doc
- Try to use effectiveness, efficiency, and appeal rubric



LINK



# Example 1: UW Madison – Sexual Harassment Training

## Preventing Sexual Harassment and Sexual Violence at UW-Madison



**Preventing Sexual Harassment and Sexual Violence**  
*for Faculty and Staff*

**Why is this training important to me?**

- 40-70% of female workers and 10-20% of male workers experience workplace sexual harassment.
- Victims of harassment often have negative emotional, physical, and financial impact.
- Those who observe harassment, or provide support to victims are also impacted.

These statistics show that Sexual Harassment and Sexual Violence are present at UW-Madison. We hope this training increases your awareness of these situations, perhaps makes you more sensitive toward your own behaviors, and provides you with actions to take if you are affected or know of someone that is being affected by the behaviors described in this training.

Source: [U.S. Equal Employment Opportunity Commission](#) 

 **Frequently Asked Questions**  
(Opens in a new window) 








LINK

Source: University of Wisconsin – Madison Canvas

# UW Madison – Sexual Harassment Training

2

## View the employee training

-  **Screen reader users:** Please use the [alternative HTML version](#) of *Preventing Sexual Harassment and Sexual Violence* to complete this training requirement
-  The interactive training **will offer to resume** where you leave off. Click "Yes" to resume.
-  Campus network connection is recommended.
-  The training includes audio. Please connect headphones or turn on speakers.
-  Recommended browsers: (Mac) Chrome, Safari, Firefox | (Win) Chrome, Safari, IE 10+

▶ Begin Interactive Training Module

## How can I get the most benefit from this training?

Focus on the following for each section:

- **Section One: Definitions and Prevention Strategies** | 30 minutes
  - We want to increase your awareness. Please be thorough when you encounter scenarios. Consider how those involved in each scenario may be impacted.
- **Section Two: Being Supportive and Knowledgeable** | 12 minutes
  - We want you to know how to respond or help. Focus on actions you may be able to take. Learn "The 3 Ds".
- **Section Three: Reporting Options and Campus Policies** | 22 minutes
  - As you explore this section you should leave with confidence that there are support options if you or someone you know ever needs help.

# UW Madison – Sexual Harassment Training

Must  
proceed in  
order

**WISCONSIN**  
UNIVERSITY OF WISCONSIN-MADISON

Resources | Escape

Section 1

Menu Script Glossary

- INTRODUCTION
- SECTION ONE
  - Definitions and Prevention Str...
  - Key Definitions of Behaviors
    - Sexual Harassment**
    - Sexual Assault
    - Dating and Domestic Viole...
    - Stalking
    - Consensual Relationships
  - Impact on Survivors
  - Knowledge Check
  - Prevention and Response Str...
  - Victimization Data
  - Bystander Intervention
  - Bystander Intervention: The T...
- Scenarios: Bystander Interve...
- Bystander Intervention Summ...
- What Will You Do?
- Knowledge Check

- SECTION TWO
- SECTION THREE
- COMPLETION

Search...

**Sexual Harassment**

Sexual Assault

Dating and Domestic Violence

Stalking

Consensual Relationships Policy

CC

**Definition**

- Unwelcome **sexual advances** or requests for **sexual acts**, unwelcome **physical behavior** or **words** that are sexual.


*Illegal and Unacceptable*


**Hostile Environment Sexual Harassment**

- Behavior that substantially **interferes** with one's work or academic career or creates **intimidating, hostile** or **offensive** work or education environment.

**Quid Pro Quo ("this for that") Sexual Harassment**

- When submitting to or rejecting this behavior influences employment or academic opportunities and decisions.

 [UW-Madison Sexual Harassment and Sexual Violence policy](#)

 [State definition of sexual harassment](#)

PREV NEXT

## Example 2 - Scrum Alliance: Scrum Foundations

- Watch videos to whatever order
- After watching a credit is received



LINK

Source: <https://www.scrumalliance.org/>

ScrumAlliance® Certification Agile Organizations Events Resources About Scrum LOG IN

### Scrum Foundations eLearning Series

If you've been curious about what Scrum is, this is great place to start. The 14-part eLearning series, based on the [Scrum Guide](#)®, is broken out into sections as follows:

**Scrum Theory and Values**—Scrum Theory (05:47), Scrum Values (3:16)  
**Scrum Roles**—Cross Functional and Self-Organizing Teams (1:42), Scrum Roles (2:39)  
**Scrum Events**—Introduction to Scrum Events (3:34), Sprint Planning Meeting (7:35), Daily Scrum (3:40), Sprint Review (2:35), Sprint Retrospective (2:25)  
**Scrum Artifacts**—Scrum Artifacts (3:48), Product Backlog (2:20), Product Backlog Refinement (2:16), Sprint Backlog (2:33), The Increment and Definition of Done (01:58)

We recommend watching the short videos in order. If you want, [download the Scrum Foundations eLearning Series transcript](#) to follow along. Also, be sure to [review the Learning Objectives](#), which will allow you to enhance your knowledge. [Click the play button below to start eLearning](#). In other words, *Scrum and get in*

Scrum Theory and Values Scrum Roles Scrum Events Scrum Artifacts

### Scrum (n): A framework

Rules

Roles

Team Decides

Events

Artifacts

If the team or the organization were to decide to remove or alter any of the components or their rules,

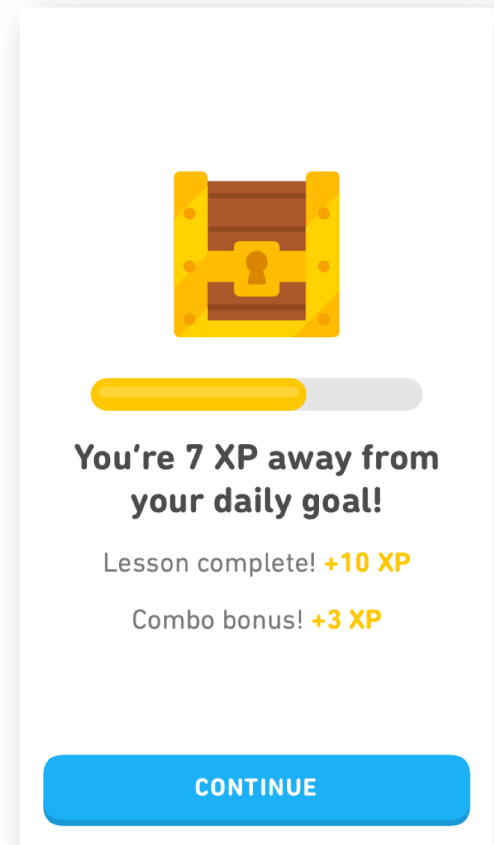
1:39

01 - Scrum Theory 02 - Scrum Values

Watching all videos in this series earns you one Scrum Education Unit (SEU®) credit.

© 2017 Peter Green. All rights reserved. Licensed to Scrum Alliance, Inc. with permission.  
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## Example 3 - Duo Lingo App: Spanish

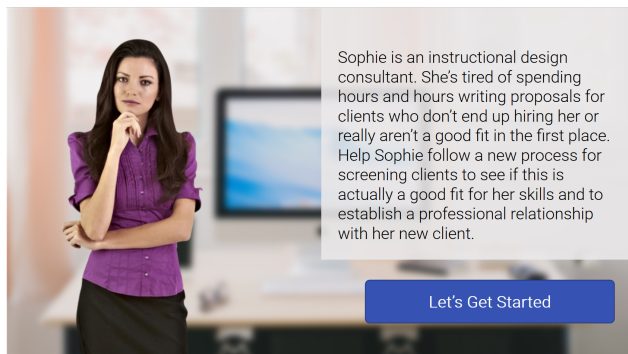


LINK

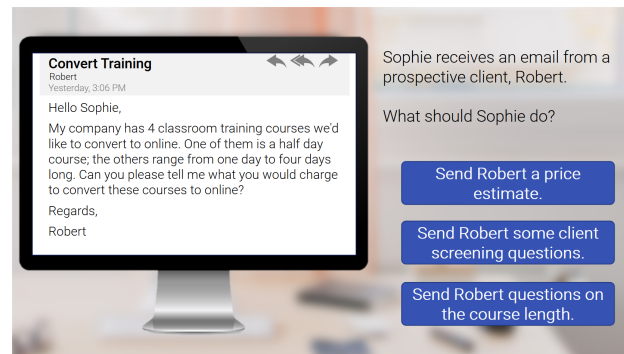
Source: <https://www.duolingo.com>



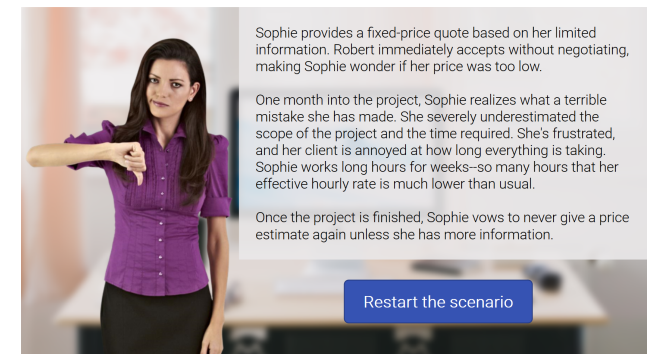
# Example 4 - Scenario-based branched learning



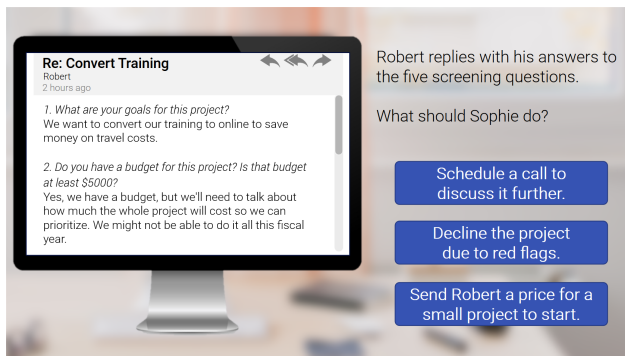
Start page



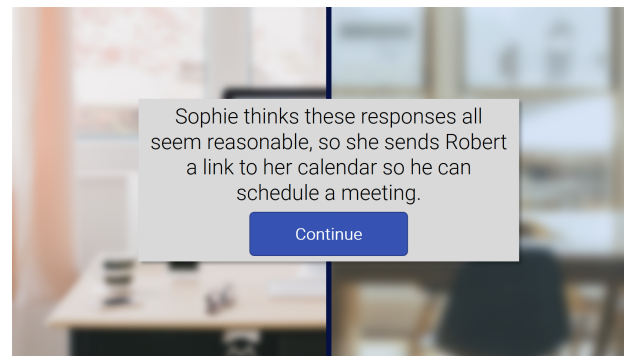
Choice page



Wrong choice feedback



Choice page 2



Correct choices leads to scenario...



LINK

<https://www.syniadlearning.com>



Checking our  
notes for  
questions...



What's the intention of the learner?  
What's the intention of the instruction?

...to impact behavioral change, improve performance, or something else?

**THINK ALOUD:** What influences certain design choices?



LINK

# Extracting SPeL from JPeL (just plain eLearning)

## **Thought-leader Perspectives**

Michael Allen: *Michael Allen's Guide to eLearning*

(Design to motivate)

Ruth Clark and Richard Mayer: *eLearning and the Science of Instruction*

(Design for best cognitive impact)

*How People Learn II: Learners, Contexts, and Cultures*

(Design for best cognitive impact)

To impact behavioral change, improve performance, or...

# Extracting SPeL from JPeL (just plain eLearning)

## **SPeL Definition Idea?**

Learners consuming learning materials at their own pace and dedicated time in an unfacilitated learning environment.

So, what's the purpose or instructional problem SPeL is trying to solve?

To impact behavioral change, improve performance, or...

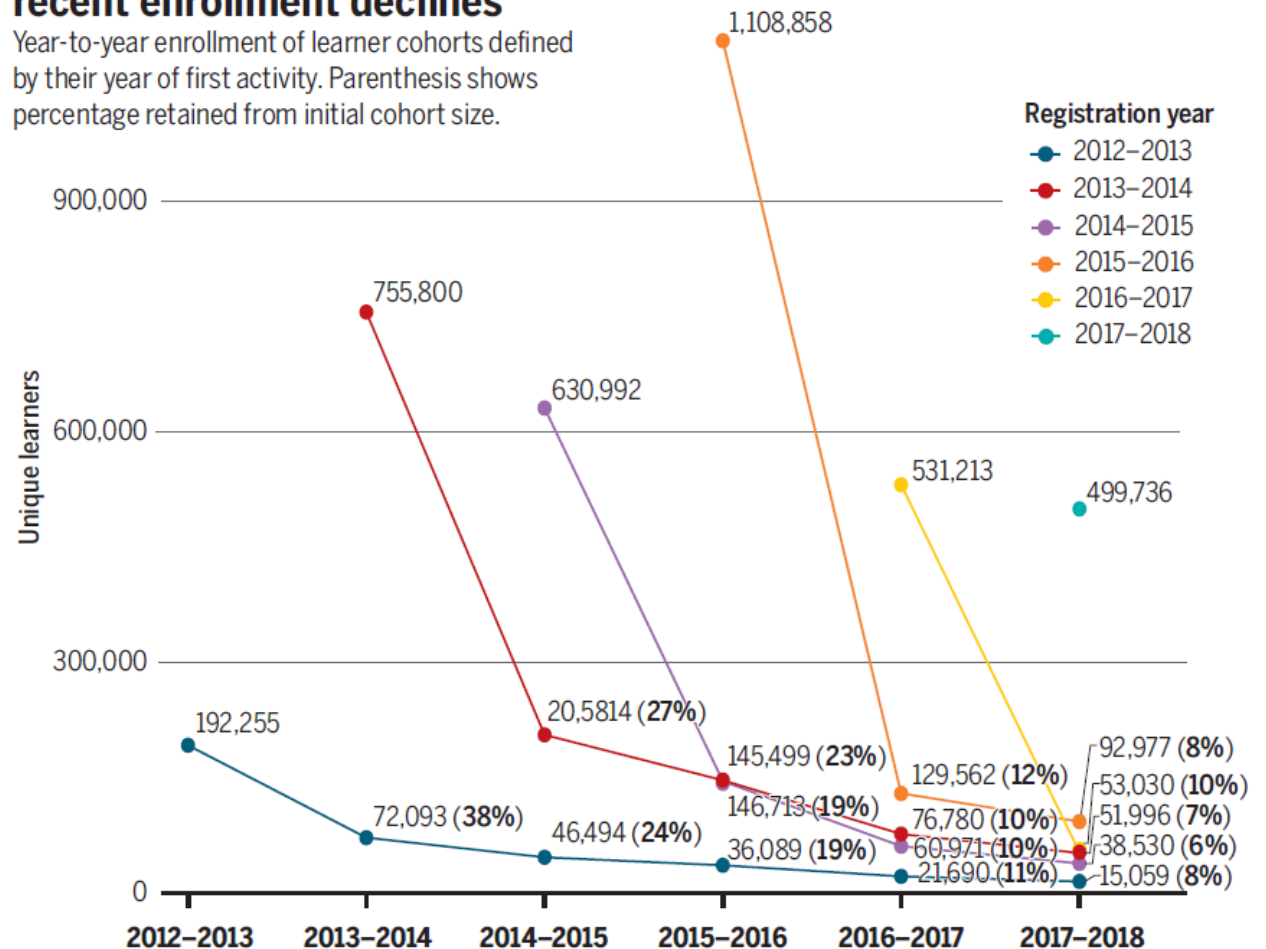


But maybe I want to learn something  
to just solve an immediate problem.

# Mooc Retention Rates

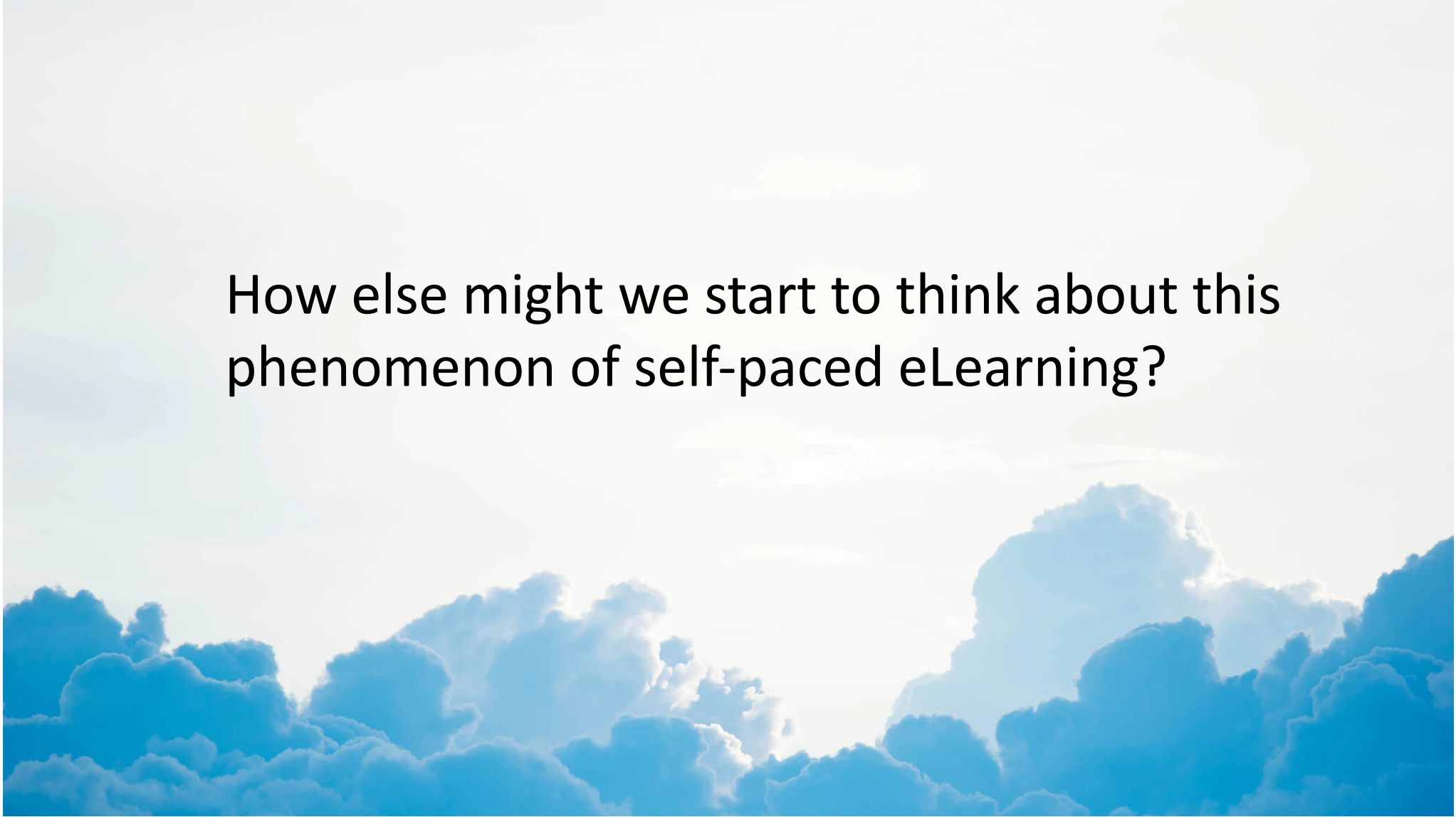
## Consistently low retention and recent enrollment declines

Year-to-year enrollment of learner cohorts defined by their year of first activity. Parenthesis shows percentage retained from initial cohort size.



MOOC Completion Rate - Lederman (2019)

How else might we start to think about this phenomenon of self-paced eLearning?

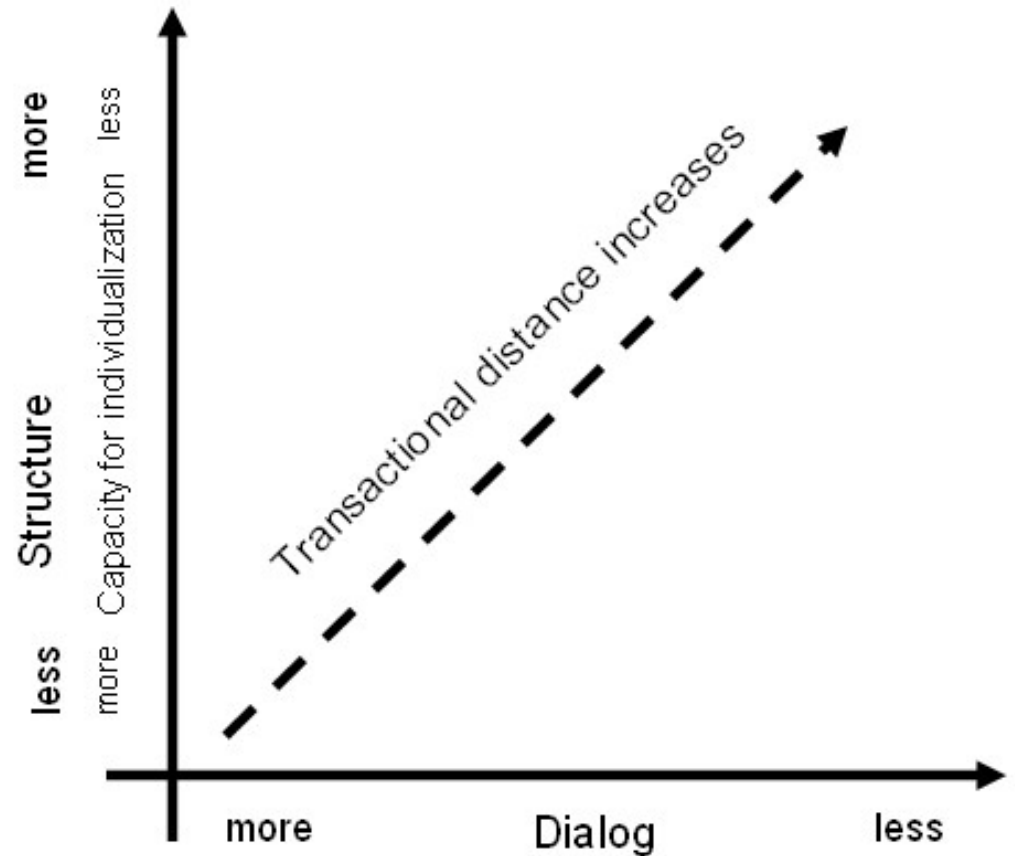




# Another perspective

## Theory of Transactional Distance (TTD)

- Structure – design of course
- Dialogue – responses between learner and educator
- Autonomy – learner choice



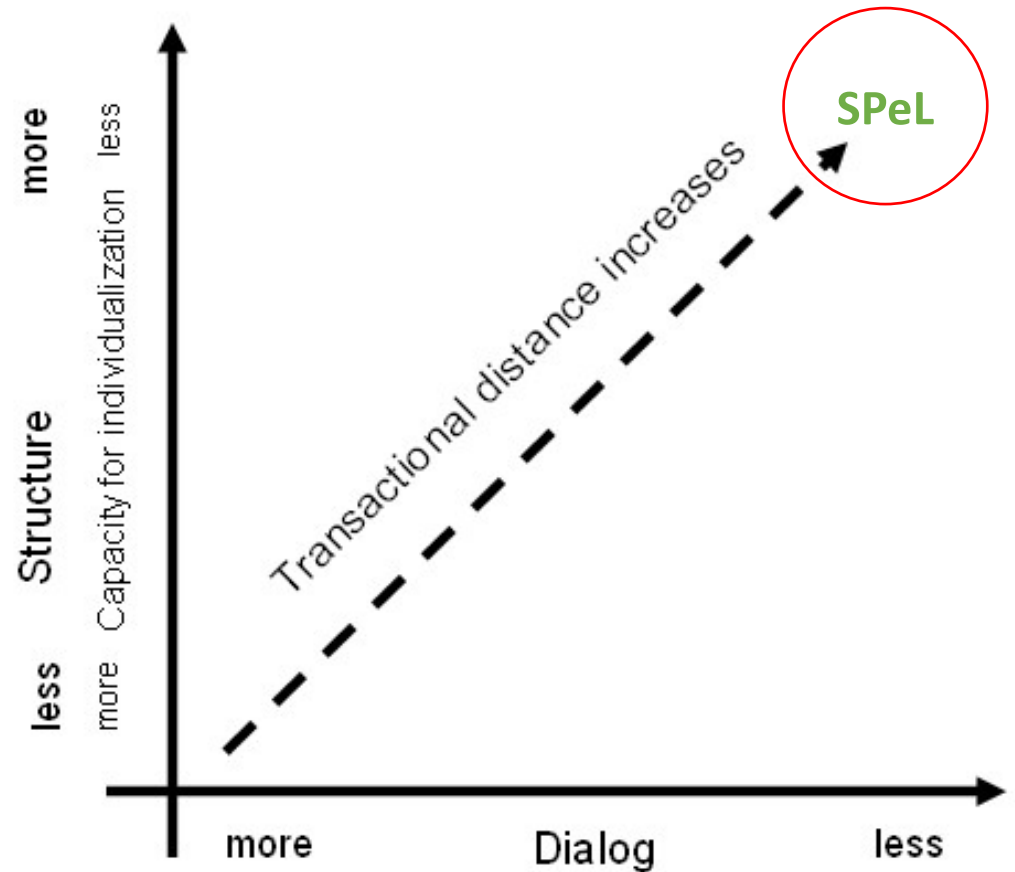
Moore (1997)

Saba & Shearer (2018)

# Self-paced eLearning seen through the Theory of Transactional Distance (TTD)

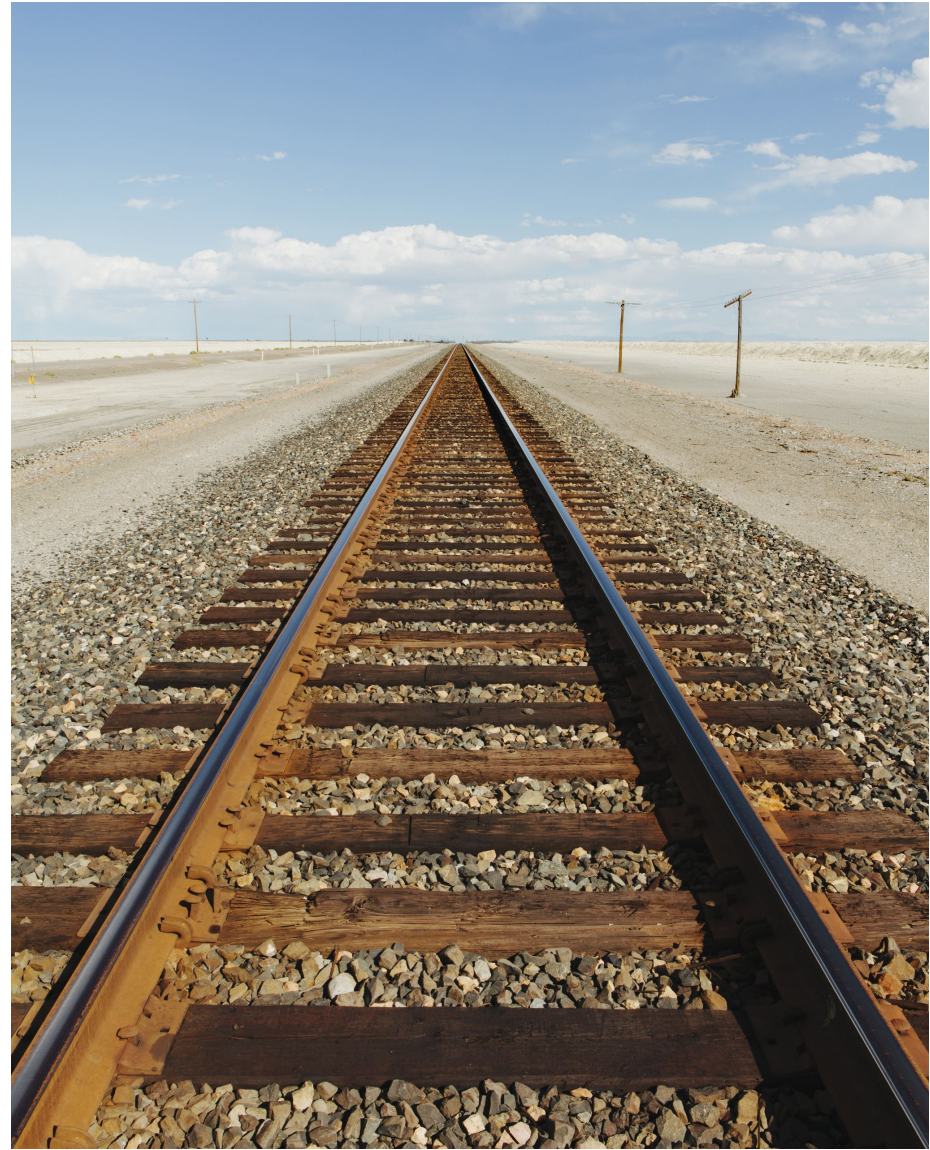
- Structure – highly structured
- Dialogue – none
- Autonomy – limited learner choice

Think about how this may match our discussion between formal and informal learning.



# What happens when you “lock” a learner in self-paced linear course?

- Highly structured
- Limited (or programmed) autonomy
- No dialogue



# SPeL Design Considerations

STRUCTURE: Adaptive design but also restrictive

- Calling out the “Modality Principle”
- Loss of autonomy when forced to listen
- Design for interactivity over passive listening
- May need to break the “Redundancy Principle”
- Adaptive learning can really mean “testing out”

Clark & Mayer (2016)



**Take a test to jump ahead!**

It takes about 5 minutes, and adapts to your level by getting harder (or easier) based on your answers.

**START**

**CANCEL**

Source: <https://www.duolingo.com>

# SPeL Design Considerations

AUTONOMY: Need to train learners to be self-regulated

- Real world tasks
- Guide learners to identify goals and how to achieve them
- Use assessments to guide learners
- Clue learners into how course design may impact their learning

Huh & Regiulth (2017)  
Watson (2017)

The screenshot shows a training module introduction page. At the top, a blue banner asks "Why is this training important to me?" and lists statistics about workplace sexual harassment. Below this, a white box contains a list of instructions for using the training, such as "The interactive training will offer to resume where you leave off." and "Recommended browsers: (Mac) Chrome, Safari, Firefox | (Win) Chrome, Safari, IE 10+." A blue button labeled "Begin Interactive Training Module" is prominently displayed. Below the button, a section titled "How can I get the most benefit from this training?" provides a focus for each section of the training, including "Section One: Definitions and Prevention Strategies | 30 minutes" and "Section Two: Being Supportive and Knowledgeable | 12 minutes".

**Why is this training important to me?**

- 40-70% of female workers and 10-20% of male workers experience workplace sexual harassment.
- Victims of harassment often have negative emotional, physical, and financial impact.
- Those who observe harassment, or provide support to victims are also impacted.

These statistics show that Sexual Harassment and Sexual Violence are present at UW-Madison. We hope this training increases your awareness to these situations, perhaps makes you more sensitive towards your own behaviors, and provides you with actions to take if you are affected or know of someone that is being affected by the behaviors described in this training.

Source: [U.S. Equal Employment Opportunity Commission](#)

**2**

**?** Frequently Asked Questions

- 🔖 The interactive training will offer to resume where you leave off. Click "Yes" to resume.
- 🌐 Campus network connection is recommended.
- 🔊 The training includes audio. Please connect headphones or turn on speakers.
- 🖥️ Recommended browsers: (Mac) Chrome, Safari, Firefox | (Win) Chrome, Safari, IE 10+

**▶ Begin Interactive Training Module**

**How can I get the most benefit from this training?**

Focus on the following for each section:

<ul style="list-style-type: none"><li>• <b>Section One: Definitions and Prevention Strategies   30 minutes</b><ul style="list-style-type: none"><li>◦ We want to increase your awareness. Please be thorough when you encounter scenarios. Consider how those involved in</li></ul></li></ul>	<ul style="list-style-type: none"><li>• <b>Section Two: Being Supportive and Knowledgeable   12 minutes</b><ul style="list-style-type: none"><li>◦ We want you to know how to respond or help. Focus on actions you may be able to take. Learn "The 3 Ds".</li></ul></li></ul>	<ul style="list-style-type: none"><li>• <b>Section Three: Reporting Options and Campus Policies   22 minutes</b><ul style="list-style-type: none"><li>◦ As you explore this section you should leave with confidence that there are support options if you or someone you know ever</li></ul></li></ul>
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Source: University of Wisconsin – Madison

# SPeL Design Considerations

AUTONOMY: Provide learner control of content, pacing, and support

- May add cognitive load to learner resulting in poor decisions
- More autonomy may impact efficiency
- Look to Heutagogy (self-determined learning) for non-linear design



Sophie is an instructional design consultant. She's tired of spending hours and hours writing proposals for clients who don't end up hiring her or really aren't a good fit in the first place. Help Sophie follow a new process for screening clients to see if this is actually a good fit for her skills and to establish a professional relationship with her new client.

Let's Get Started

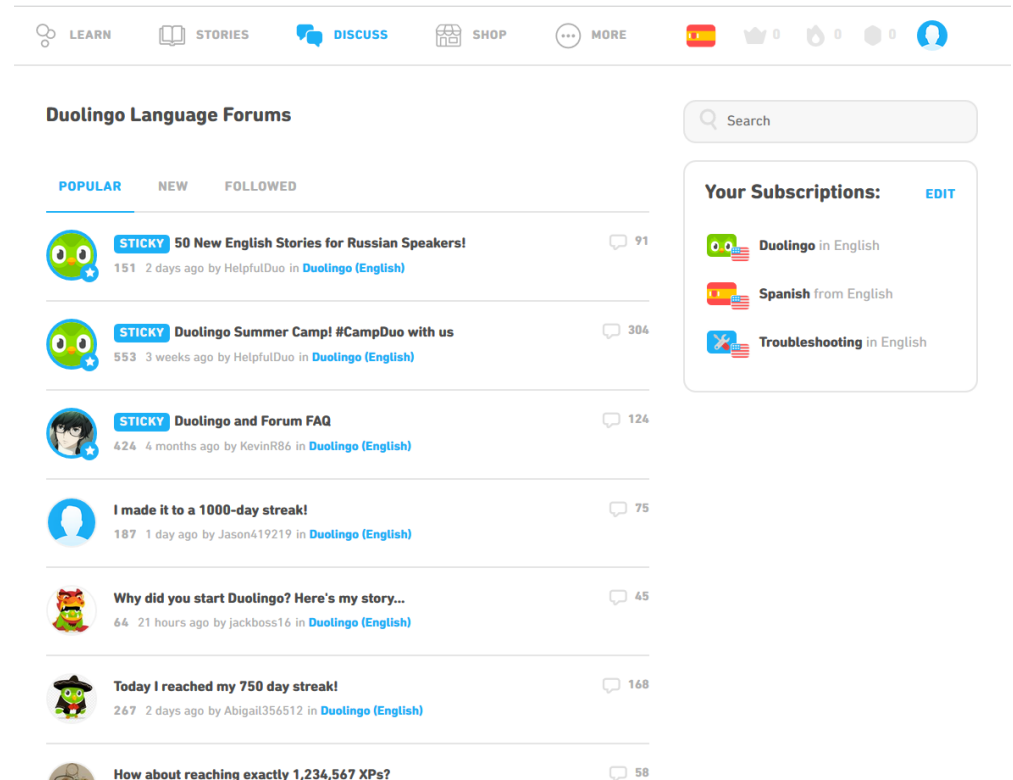
Clark & Mayer (2016)  
Blaschke & Hase (2019)

<https://www.syniadlearning.com>

# SPeL Design Considerations

DIALOGUE: **The missing piece in SPeL. How can a shared understanding occur?**

- Co-creation of knowledge (Connectivism)
- Difficult to capture
- Learner needs to know when to reach out
- Missing from many SPeL courses



Source: <https://www.duolingo.com>



# Design and Implementation Challenges for SPeL

Accessibility

Equity

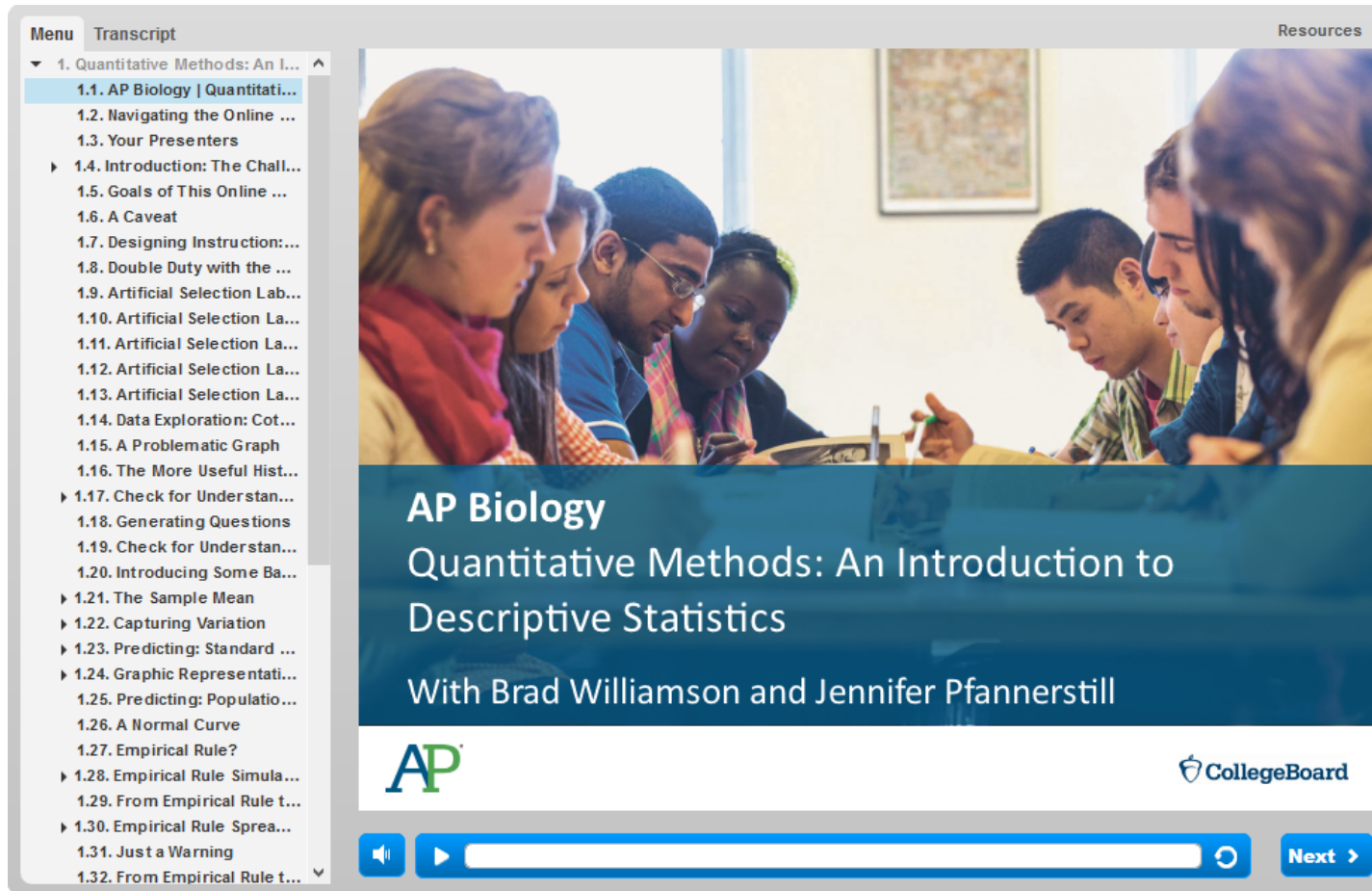
Learner  
Motivation

Fidelity





Is “Click Next” effective, efficient, and appealing?



The screenshot displays the AP Biology video player interface. On the left is a 'Menu' sidebar with a 'Transcript' tab. The menu lists 32 items, with '1.1. AP Biology | Quantitative Methods: An Introduction to Descriptive Statistics' highlighted. The main video area shows a group of students working together. Overlaid on the video is a blue banner with the text: 'AP Biology', 'Quantitative Methods: An Introduction to Descriptive Statistics', and 'With Brad Williamson and Jennifer Pfannerstill'. Below the banner are the AP logo and the CollegeBoard logo. At the bottom of the video player is a blue progress bar with a play button, a volume icon, and a 'Next >' button.

Menu Transcript Resources

1. Quantitative Methods: An Introduction to Descriptive Statistics

1.1. AP Biology | Quantitative Methods: An Introduction to Descriptive Statistics

1.2. Navigating the Online Course

1.3. Your Presenters

1.4. Introduction: The Challenge

1.5. Goals of This Online Course

1.6. A Caveat

1.7. Designing Instruction: The Challenge

1.8. Double Duty with the Challenge

1.9. Artificial Selection Lab: The Challenge

1.10. Artificial Selection Lab: The Challenge

1.11. Artificial Selection Lab: The Challenge

1.12. Artificial Selection Lab: The Challenge

1.13. Artificial Selection Lab: The Challenge

1.14. Data Exploration: The Challenge

1.15. A Problematic Graph

1.16. The More Useful Histogram

1.17. Check for Understanding

1.18. Generating Questions

1.19. Check for Understanding

1.20. Introducing Some Basic Statistics

1.21. The Sample Mean

1.22. Capturing Variation

1.23. Predicting: Standard Deviation

1.24. Graphic Representation of Data

1.25. Predicting: Population Parameters

1.26. A Normal Curve

1.27. Empirical Rule?

1.28. Empirical Rule Simulation

1.29. From Empirical Rule to Normal Distribution

1.30. Empirical Rule Spread

1.31. Just a Warning

1.32. From Empirical Rule to Normal Distribution

AP Biology

Quantitative Methods: An Introduction to Descriptive Statistics

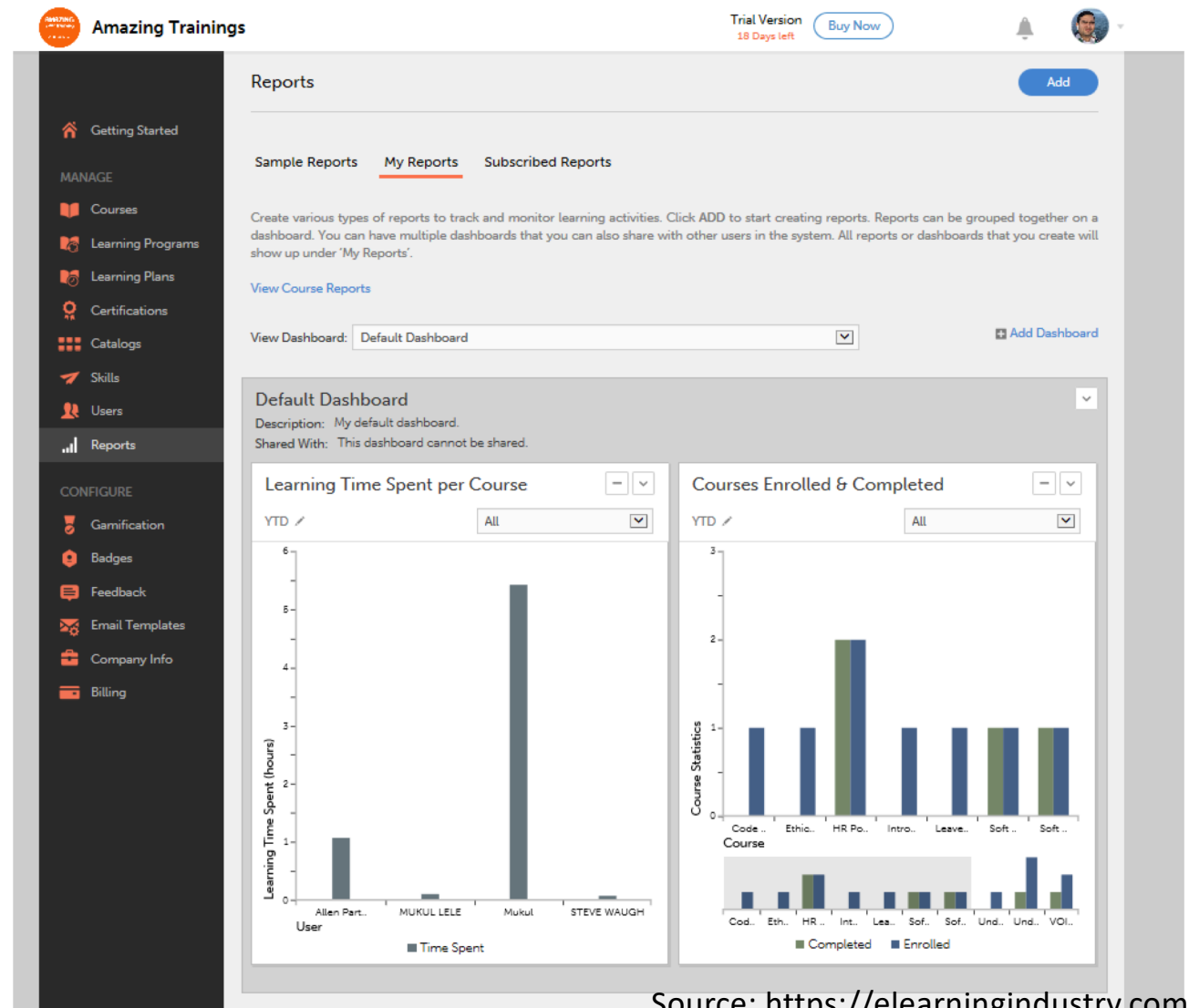
With Brad Williamson and Jennifer Pfannerstill


AP CollegeBoard

Next >

Source: College Board AP Central

Or even this...





Contact  
[forgard@wisc.edu](mailto:forgard@wisc.edu)  
@kforgard  
Linkedin/kevinforgard

Thank you!  
—  
Kevin Forgard