



# Designing Effectively for Future Learning

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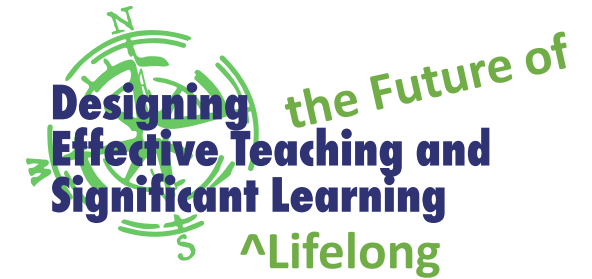
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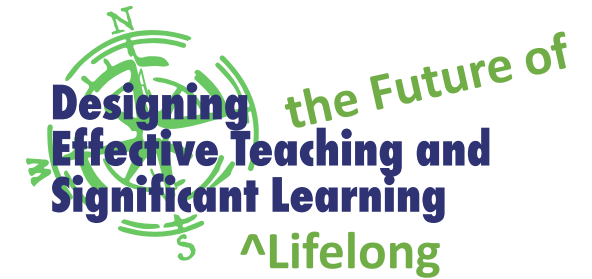
# *The Future of Higher Education*

# Traditional Versus Future Model



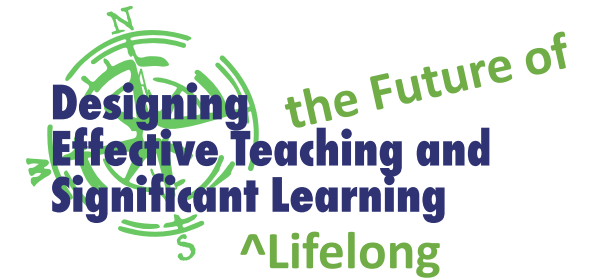
Traditional Model	Future Model
One size fits all learning experience. Backward looking.	Customized, individualized microlearning. Forward looking.
Power is controlled by the institution	Power is controlled by the learner.
What do you want me, as the student, to do to graduate?	Answers the questions, “Why do I need to know this?” and “How will I used this?”
Graduation and degree completion is the focus.	Earning badges and microcredentials for outcome and competency mastery.
Progress is based on earning grades with the end result = G.P.A. Grade is a disconnect with what is learned.	The end result = list of mastered skills. Their competence is connected with, and based on what they learned.

# Traditional Versus Future Model



Traditional Model	Future Model
Providing a greater experience forming communities for residential students, academic courses, learning resources, and offering entertainment and events.	Focus on specific needs of learners and career development. Learning is more targeted for individuals through course work and internships.
“Going away to college.” Learning was accomplished by purchasing a textbook, attending lectures by a professor expert, writing papers, and taking tests.	Learning is mobile and at your fingertips. The design of courses uses open-source materials, student-researched topics, collaborative partnerships, and integrated, team-based learning.
Slower return on investment. Learn now, apply after graduation.	Faster return on investment. Learn today, use tomorrow.

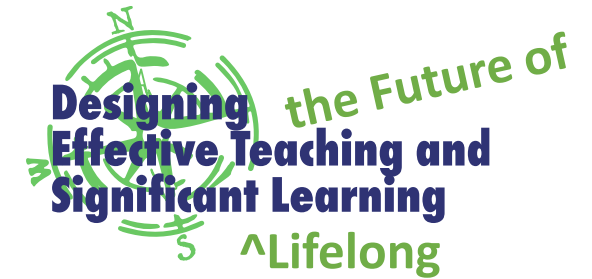
# Redesigning the Future: The Brand



The focus will include:

- **Individual learning pathways** for students.
- An **online and campus network** to support students.
- Improve academic and career preparation success by providing more **partnerships and employment results** to attract and retain students.
- Improved and expedient process to assess **credit for prior learning**.
- **Lowering costs**: Students want to pay for what they need to succeed.

# Redesigning the Future: The Learning



Learning is mobile and more flexible for students *and* faculty.

- Greater importance on using a **learning management system**.
- Increased use of **emerging technologies**.
- Greater attention to **improve online delivery and performance**.
- New opportunities to benefit **talent acquisition and engagement**.
- Students who **move for work or family circumstances** can continue learning through online delivery.
- More **part-time students** are taking courses online.
- The ***Amazon Effect***

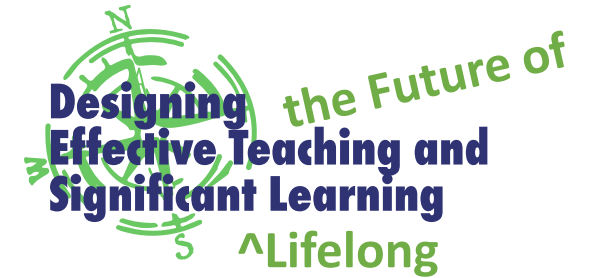
# Redesigning the Future: The Learning



Course design needs to improve to better align course outcomes, assessments and activities as they are aligned industry and national standards.

- Students want to see a personal connection with the learning.
- Improving access for all students and engaging learners.
- Faculty-centered courses changing to student-centered courses.

# Redesigning the Future: The Learning

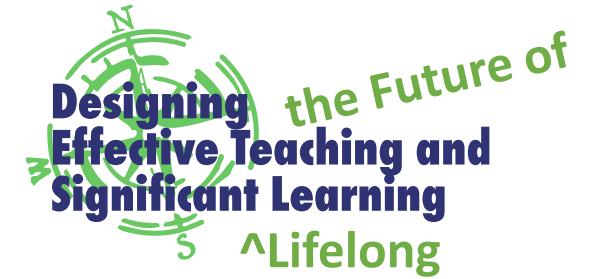


Past learning focused mostly on the cognitive domain. Today, the cognitive is still critical and must be paired with the affective domain.

- Learning needs to be more holistic (cognitive and affective) in its approach.
- Collect feedback by asking students what they need to better learn.
- Greater partnerships with employers.



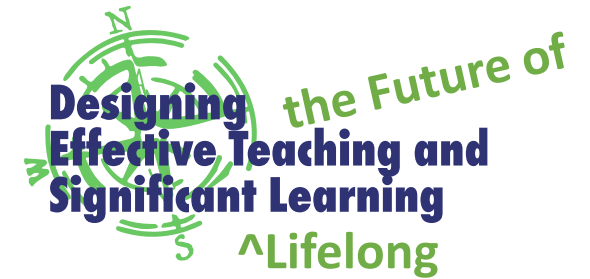
# Redesigning the Future: The Learning



Working with faculty in the Online Course Design Institute we share the following two examples of current best design practices.

- The Taxonomy of Significant Learning combines the cognitive and affective domains created by Dee Fink and supported in our book, *Designing Effective Teaching and Significant Learning*.

# Taxonomy of Significant Learning



## Affective

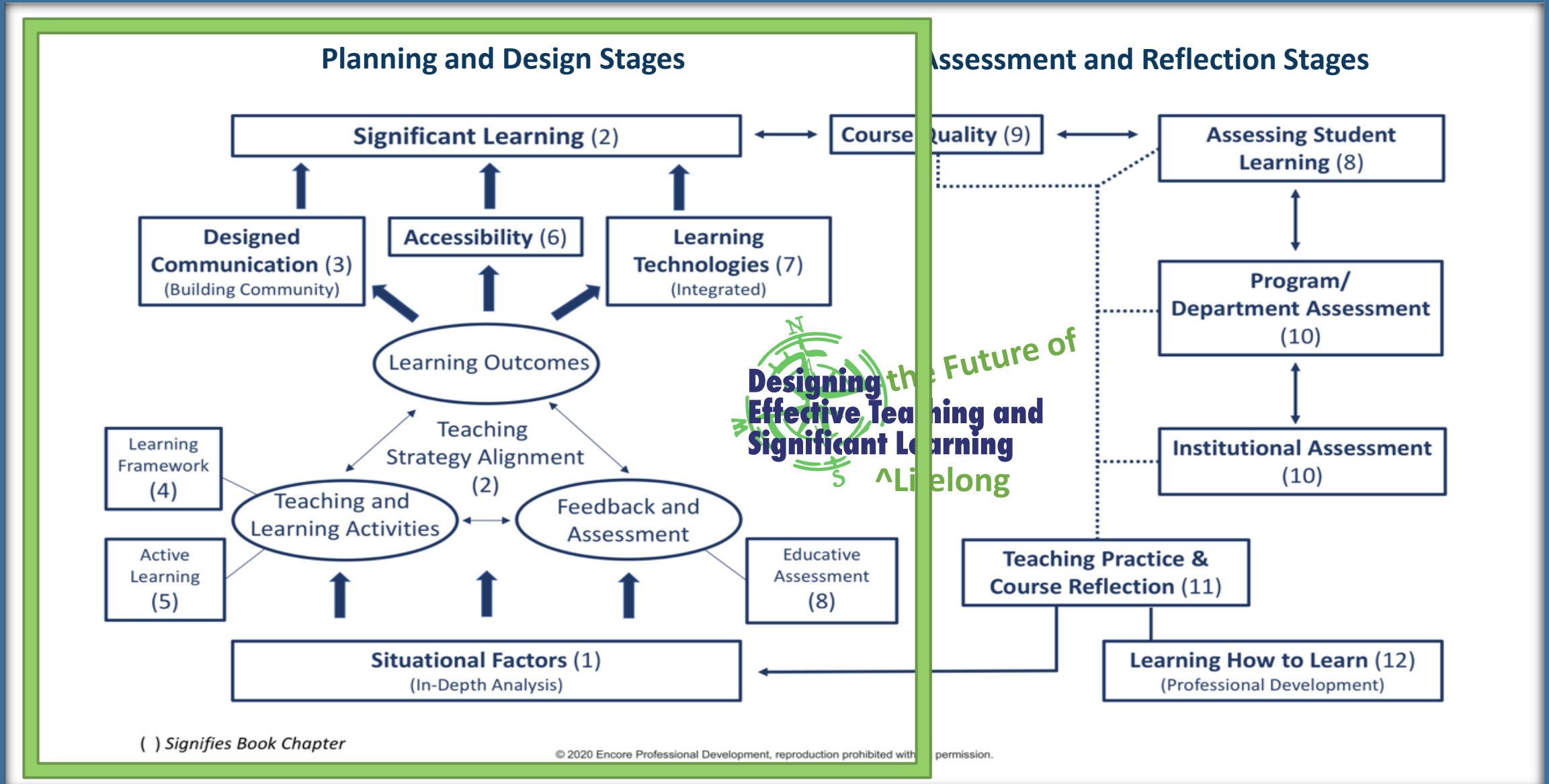
Expressing emotion or feeling. Focuses on human elements and emotional intelligence.



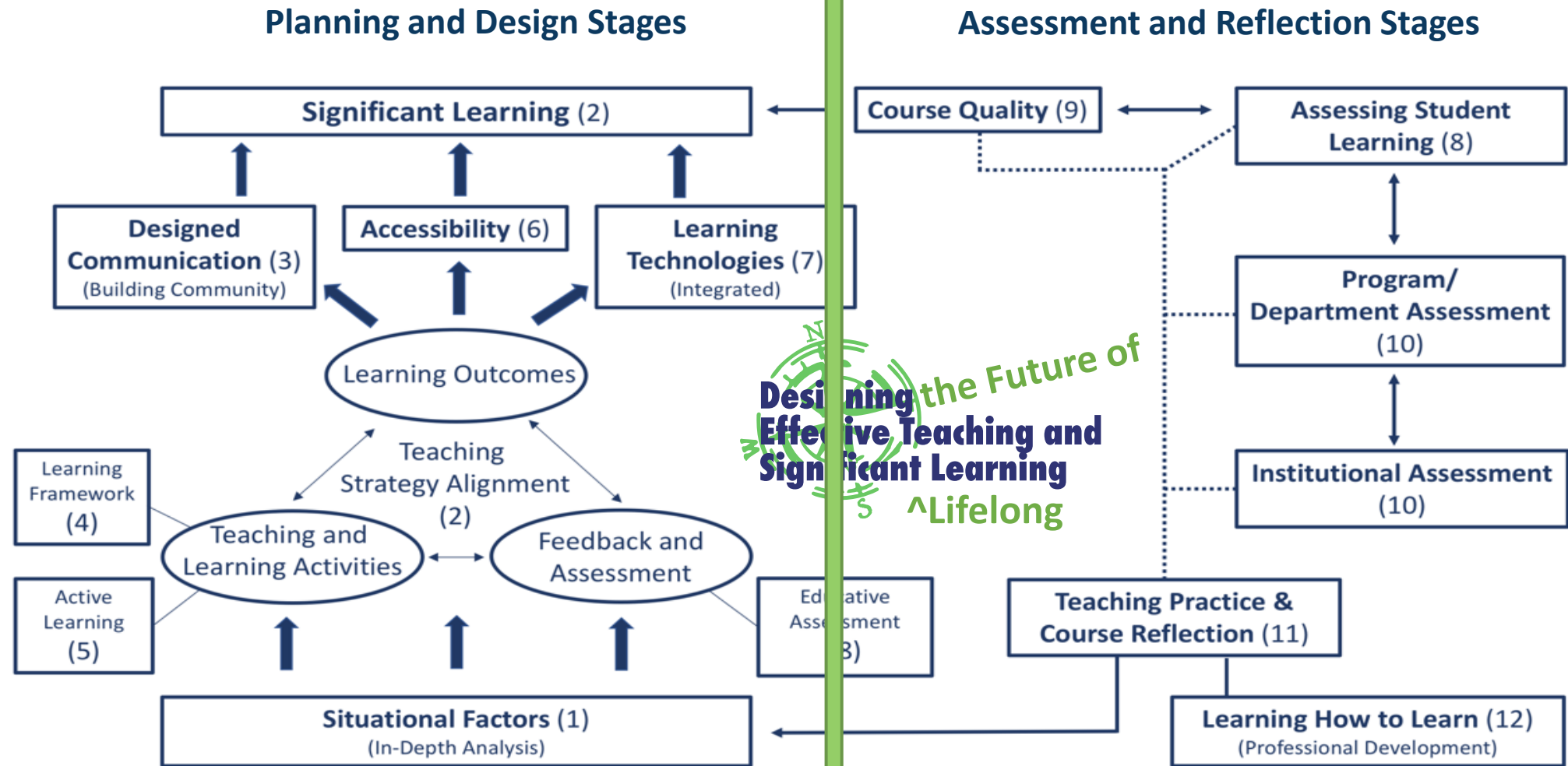
## Cognitive

The act or process of knowing, perceiving, etc. Focuses on the technical elements.

# The Cycle of Course Design



# The Cycle of Course Design

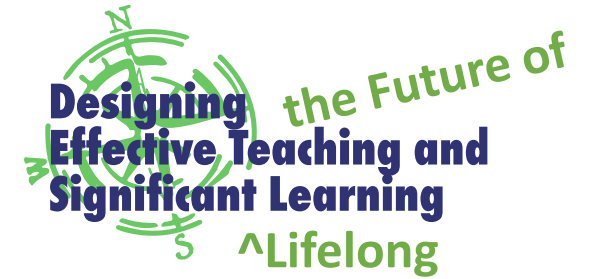


*Designing the Future of Effective Teaching and Significant Learning*  
*^Lifelong*

( ) Signifies Book Chapter

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# Individualizing Learning



## Individualized learning

- Motivates students.
- Provides student choice in learning new content.
- Provides greater opportunities for novice and advanced students within the same course.
- Offers opportunities to share prior experiences and dig deeper to learn more about the topics of interest.



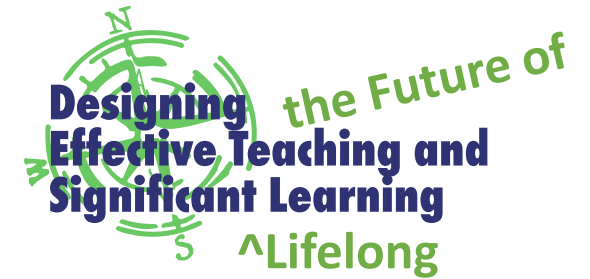
## In Chat, please respond.

- How are you individualizing learning in your courses?
- How do you currently have your students create their own (individual) learning outcomes for your course?



***Badges and Micro Credentials,  
Individualized and Micro Learning***

# Badges and Micro Credentials



Students will have a greater voice in designing their learning.

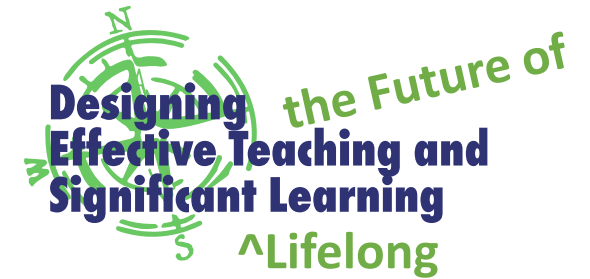
- Individualize their lifelong learning.
- Achieved through taking the courses they need for work.
- Use multiple portals for obtaining and archiving learning.
- Microlearning, badges, micro- and stackable credentials are ways to motivate students and archive their learning experiences.



# Microlearning and Badges



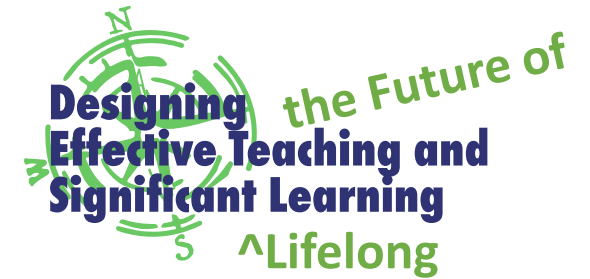
# Microlearning and Badges



**Badges** can provide a great deal of information including:

- The name of organization issuing the badge
- Contact information,
- Description of the outcomes and competencies or certificate
- Date on which it was earned and/or expires,
- Evidence of the learning that took place.

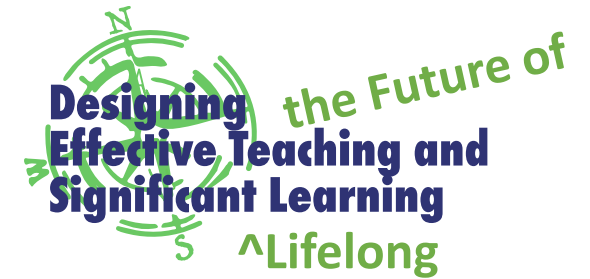
# Microlearning and Badges



**Badges** can show how a student has earned experiences in academic institutional learning, workshops, volunteer and community service work.

- Attach them to portfolios and resumes.
- Documentation of specific learning is one of the most valuable attributes of using badges.
- Demonstrate all student learning experiences from multiple portals that make up their lifelong learning.

# Microlearning and Badges



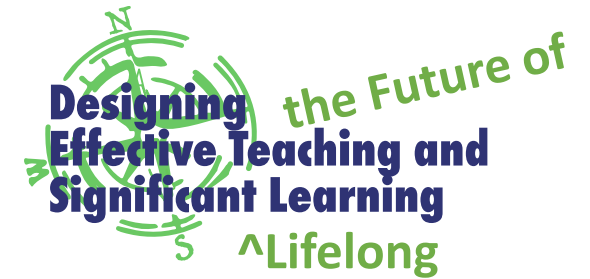
**Badges** or ADCs [alternative digital credentials] are a growing and permanent force:



- Large numbers of ADCs are offered by universities and corporations;
- Traditional transcripts are not serving the current workforce;
- Accrediting agencies are demanding evidence of learning outcomes;

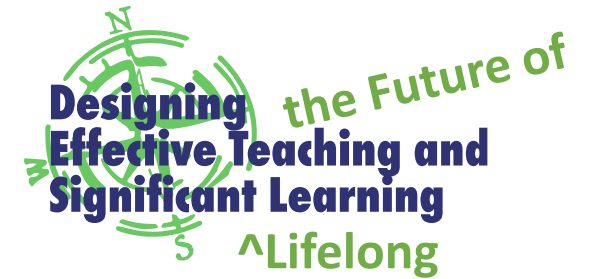


# Microlearning and Badges



- Young adults are demanding shorter, more workplace-relevant learning with immediate delivery;
- Open education is demanding some form of attestation of accomplishment;
- Employer hiring practices are increasingly based on digital searches, and;
- International ecosystems are developing to support ADCs. [Source](#)

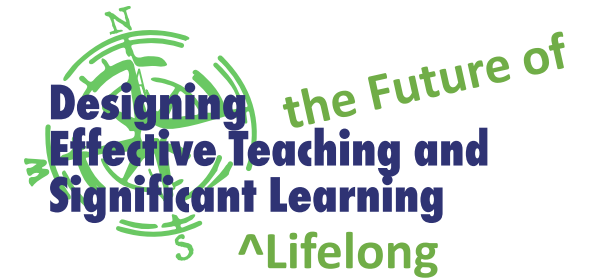
# Microlearning and Badges



Creating badges through application tools such as Credly, Badgr Backpack, and BadgeOS makes it easier than ever. Open Badges has created guidelines for the framework of badge creation.

**Micro credentials** allow students to earn short credentials which are focused to provide both in-demand skills with career experience.

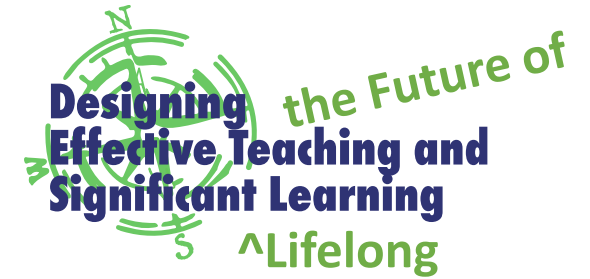
# Micro- and Stacked Credentials



**Stackable credentials** can lead to a pathway to earn awards.

- Advantage: students can start and stop as needed.
- Current or past students who have worked to earn stackable credentials can continue their learning.

# Micro- and Stacked Credentials



## Challenge for institutions:

- Make the learning more flexible and accessible.
- Immediacy is key.
- Develop on-ramps for students.
- Deliver online through devices of choice.
- Develop quality experiences.
- Changing mindsets.



# Pros and Cons

Strengths	Challenges
Stackable microcredentials.	Microcredentialing recognition and acceptance by learners and organizations.
Considers a full array of learning experiences.	Transfer challenges between institutions.
Flexible addition of continued learning on the learner's schedule.	Informal community experiences have the same relevance as formal academic learning.
Affordable learning experiences.	Badges can expire and will need to be updated.
Increased learner choices.	Financial aid support needed to cover learning costs.
Advancing career goals for workers without degrees.	Many learners worldwide don't have access to broadband, wireless devices, and digital literacy to be successful.
Small- and medium-sized organizations can benefit without having a robust HR or training department.	Ensuring that within countries and organizations access to learning needs to be equitable.
Accessibility for employees via cloud-based learning platforms.	Anyone can create online learning. Quality is difficult to maintain.
Emerging technologies to improve learning quality.	Lack of efficient, seamless transfer pathways with higher education institutions.
Learning to fit all ages, experience and education levels, industry sectors, genders, and socioeconomic and racial/ethnic groups.	Governments, the private sector, and non-profit organizations will need to prioritize learning for its citizens and customers to close the digital divide.

**Designing Effective Teaching and Significant Learning** the Future of Lifelong





**In Chat, please respond.**

- How are you currently using badges in your courses?
- In what ways is your program and institution designing learning to include micro credentialing and stackable badges?



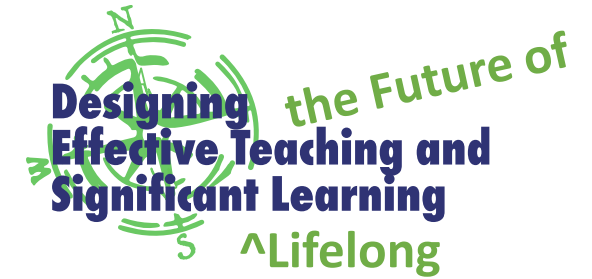
# *Using AI Tools and ChatGPT*



**In Chat, please respond.**

- What were/are your initial thoughts about the release of ChatGPT types of tools?
- Have you had any biases about this use of technology in education?
- How are you using AI tools in your courses now?

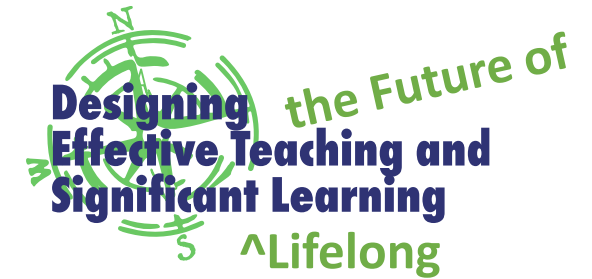
# ChatGPT Integration



## *Developing a Plan*

- Set clear guidelines and expectations.
- Communicate the guidelines within the course and syllabus including ethical and responsible behavior, to promote effective use of the technology.
- Teach students the proper use of these AI tools by creating guides and how-to directions.

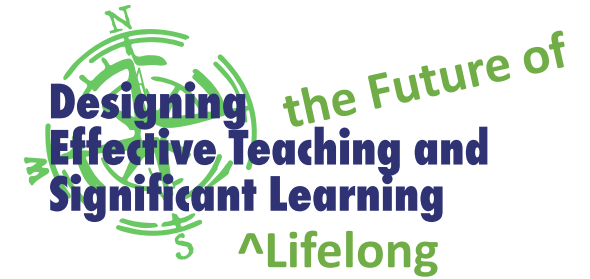
# Challenges Integrating ChatGPT



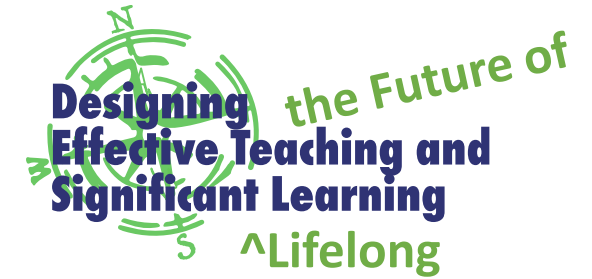
- Limited knowledge
- Lack of understanding
- Bias in training data
- Difficulty with complex or abstract concepts
- Unintended consequences
- Integration challenges
- Maintenance and updates
- Providing equal access

# Ethical Challenges with ChatGPT

- Bias and fairness
- Privacy
- Lack of transparency and accountability
- Algorithmic decision-making
- Human oversight



# AI in Course Design



AI Tools and ChatGPT has changed the landscape of course design.

“Design your courses to assess and provide learning activities based on *doing* so students can demonstrate their *knowing*.”



# AI in Course Design

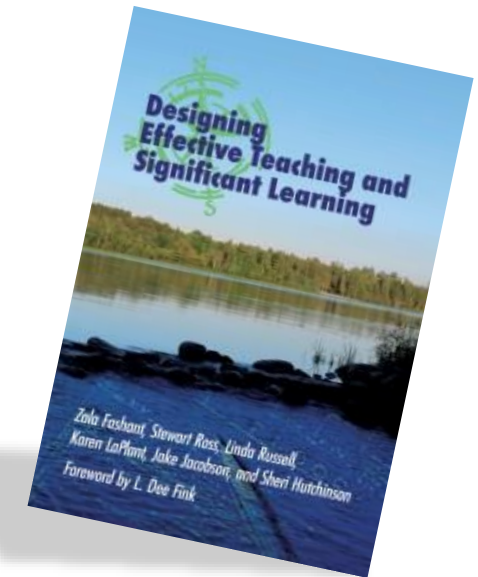


Focus on building that **knowing** foundation, while measuring the application and integration of course (skills) content.

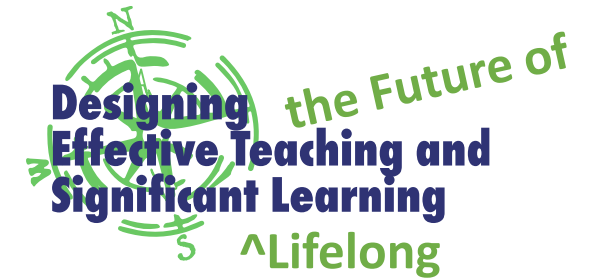


[Online Course Design Institute OCEDI](#)

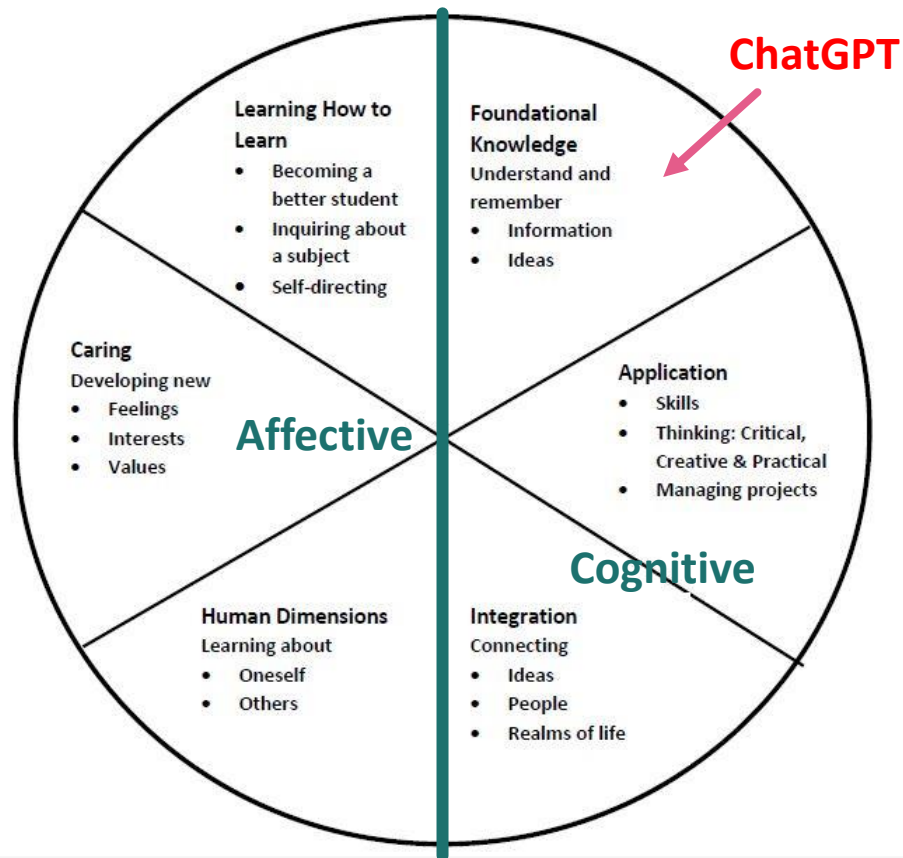
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# AI in Course Design

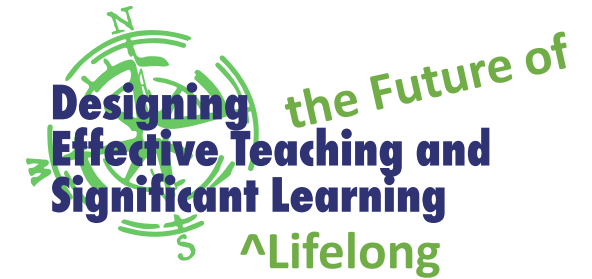


## The Taxonomy of Significant Learning



These domains tend to be performance-based in the demonstration of thinking, something that ChatGPT isn't as proficient at. The taxonomy stresses the cognitive domains, but also features the performance-based domains of students analyzing their observations in the affective domains.

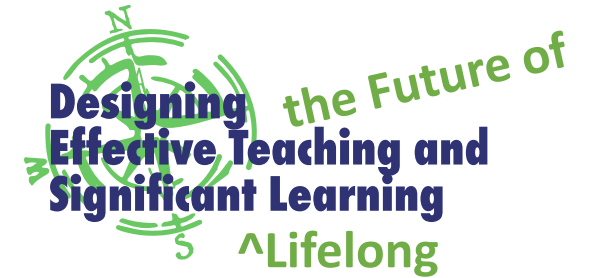
# Integrating AI in Course Design



## *Creating Courses to Integrate AI Tools: Topics for Redesign*

- Improved Outcomes
- Interactive Prompts
- Assessment Strategies
- Learning Activities
- Increased Student Engagement

# Integrating AI in Course Design



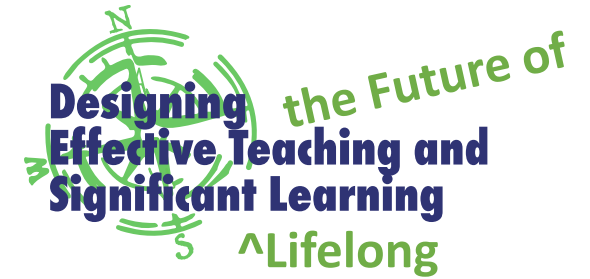
## *Improving Course Outcomes – Advancing Learning*

- Less time spent on Foundational Knowledge outcomes (define, describe, explain, find, identify, label, list, match, name, outline, recite, select, and state)
- Developing and teaching more Application and Integration domain outcomes.
- Students spend *more* time self-assessing their Foundational Knowledge, while demonstrating mastery by performing skills.

# Interactive Prompts

## *Tips for Effective Use of ChatGPT*

- Be specific and clear in your questions
- Use proper grammar and spelling
- Provide context
- Ask one question at a time
- Be patient
- Be open-minded
- Verify the information
- Managing technical issues



# Interactive Prompts

Designing the Future of  
Effective Teaching and  
Significant Learning  
Lifelong



## Spreadsheet

### Formula Generation in Excel:

Create a formula to [goal] in cell [range of cells]

- Create a formula to calculate the sum in cells A1 to A10
- Create a formula to calculate the average in cells H10 to H20
- Create a formula that sums only the expenses that have the status "No" in column C

### Explain formula

Explain the meaning of the formula [formula]

- Explain the meaning of the formula `=SUM(A1:A10)`
- Explain the meaning of the formula `=AVERAGE(H10:H20)`
- Explain the meaning of the formula `=SUMIF(C1:C13,"No", B1:B13)`

### Advanced Formulas, Macros and VBA

- I have a table with phone numbers in column A that have the format: (xxx) xxx-xxxx. Extract the numbers within parenthesis using Excel
- Create a macro that calculates the average of cells B1 to B10 and inserts the result in cell C1
- Create a macro that sorts sheets by tab name using VBA.

### Google Sheets

Create a formula to [goal] in cell [range of cells]

- Create a formula in Google Sheets to calculate the sum in cells A1 to A10
- Create a formula in Google Sheets that puts data from one sheet into the current sheet
- Explain this Google Sheet command: [insert command]

## Foreign Language

### Ask questions:

What's the difference between [word1] and [word2] in [language]? Provide X examples

- What's the difference between **por** and **para** in Spanish? Provide 2 examples
- What's the difference between **tu** and **você** in Portuguese? Provide 4 examples

### Conversation:

Act as a language partner. You'll start a conversation with me about [topic] in [language]. In every response, you should provide your opinion and then ask me a question to keep the conversation going.

### Write essays in any level:

Write a [level] [type of essay] in [language]. about [topic]. It must be X words long.

- Write a B1 report in English about pollution. It must be 500 words long
- Write a A2 letter in Spanish about your financial situation. It must be 300 words long
- Write a C1 review in Portuguese about a tech product. It must be 500 words long.

### Vocabulary:

Create a table of difficult words from the previous essay and translate them into [language]

### Pronunciation:

Create a table with 2 columns: In the first column type the [language] words: [word1, word2, ...]. In the second column, you should provide the phonetic transcription.

## Content Creation

### Ideas Generation:

Give me ideas for [type of content] about [subject], covering topics like [topic1, topic2, ...]

- Give me ideas for a blog post about writing covering topics like writing tools and writer's block.
- Give me ideas for a podcast about technology covering topics like AI and machine learning.
- Give me ideas for a YouTube video about best books to read covering only self-help books.

### Outlines

Create an outline for [type of content]

- Create an outline for a blog post about productivity
- Create an outline for a book "how to learn to learn a foreign language in 3 months"
- Create an outline for a course "how to learn Python for data science"

### Course Quiz:

Turn a [list] into [type of quiz]

- Turn a list of facts about world history into a multiple-choice quiz
- Turn a list of facts about biology into true/false question

### Thumbnail:

Act as a prompt generator for Midjourney's AI. Your job is to describe [object] as concisely as possible. Always give 3 different and contrasting versions of a [object] and include any random artist name prefixed by "in the style of"

### Giveaway:

Choose X random contest winner(s) from a long list of names or emails: [insert names or emails]

Artificial Corner

## Programming

### Coding Questions:

How to [action] in [programming language]?

- How to merge dictionaries in Python?
- How to join two datasets in Python?

What's the difference between [concept1] and [concept2] in [language]?

- What's the difference between lists and dictionaries in Python?
- What's the difference between OOP and functional programming?

Explain the [concept] in [language]

- Explain the while loop in Python
- Explain the try/except in Python to a child

### Advice:

I want to learn [language] for [field]. Create a roadmap to learn [language]

- I want to learn Python for data science. Create a roadmap to learn Python
- I want to learn JavaScript for web development. Create a roadmap to learn it

I want to automate [app]. Provide steps to [task] with [language]

- I want to automate Gmail. Provide steps to sending emails with Python
- I want to automate Tinder. Provide steps to swipe right with Python

Simulate a job interview for a [position] by asking and answering questions as if you are a potential employer and I'm the candidate. Consider that [details]

### Web Development:

I want to build a [type of website]. Can you generate some HTML for my website?

- I want to build a job board website. Can you generate some HTML for my website?
- I want to build a price comparison website. Can you generate some HTML for my website?

### Additional steps:

- Can you center the content in the HTML page, add a line break between the inputs and add an image on a logo?
- Add CSS to customize the size of the logo image

### Automation:

- Send the message "[type message]" on Whatsapp using Python and pwwhatkit
- Send an email from [email\_1] to [email\_2] with the subject [email subject] and the content [email content] using Python
- Use Python to rename all the [file extension] files in my directory. Add the word [word] to each name

## Data Science

### Data Science Questions:

Where can I find data for my [describe project]?

- Where can I find data for my credit card fraud detection project?
- Where can I find data for my customer churn prediction project?

How to [action] my dataset?

- How to oversample/undersample my dataset?
- How to split my dataset into train and test sets with Python?

### Best practices:

Can you [best practice] my code?

- Can you optimize the following Python code?
- Can you simplify the following R code?
- Can you document my code?
- Can you check for readability in my code?

### Automate Data Science Tasks:

- Translate my Python code to R
- Turn this SQL code to Python pandas code
- Format my SQL code by converting the reserved keywords to uppercase
- Create a SQL query that [describe query]
- Write a regex in Python that [describe regex]

### Data Science Workflow:

Web scraping (only working for a few websites)

- Web scrape [website] using [language] and [library]

Generate data

- Act as a fake data generator. Create a dataset that has X rows and Y columns: [column1, column2, ...]

Train Classification model

- I have a dataset of [describe dataset], build a machine learning model that predicts [target variable]

Tune Hyperparameter

- I've trained a [model name]. Write code to tune the hyperparameters

Feature Importance

- I've trained a [model name]. Write code to find the most important features in the model

Artificial Corner





## Writing

### Blog Posts/Essays/Articles:

Write a [adjective] [type of content] on [goal]. Explain why: [topic1, topic2, ...]

- Write a friendly blog post on why people should lose weight. Explain why obesity is a problem, how people can lose weight, and why being healthy is important.
- Write a humorous essay on how not to prepare for an exam.

### Writing Assistant:

Can you [action] my text [adjective]?

- Can you make my paragraph less formal?
- Can you make my sentence easier to read?
- Can you complete my sentence? [insert sentence]
- Can you continue my paragraph? [insert paragraph]

### Copywriting:

Write a [type of content] for [subject] showcasing the [benefit1, benefit2, ...].

- Write a social media ad for a productivity tool showcasing its simplicity and design.
- Create a sales copy for a travel agency showcasing the price, destinations and commitment.

### Email:

Reply to this email: [insert email]. Be [behavior] and say [ideas].

- Reply to this email. Be polite and say that I accept the offer if ...
- Reply to this email. Be friendly and say that I don't have time for the meeting.

### Social Media:

Create X [type of content] for [platform] [details]

- Create 5 hashtags and a caption for a picture on Instagram of a cute cat
- Create 2 bios for LinkedIn highlighting my work achievements

## Creativity

### Entertainment:

Create X [element] considering [detail]

- Create 5 jokes considering words like knowledge and money.
- Create 5 pickup lines considering that you're a doctor

### Planning:

Create a X-day [type of plan] for [detail]

- Create a 7-day trip for our anniversary in September.
- Create a 30-day workout for my arms and abs with no gym equipment
- Create a 5-day meal plan for a child who is lactose intolerant.

### Gift Ideas:

Provide X gift ideas for [type of people]

- Provide 3 gift ideas for clients of a travel agency
- Provide 4 gift ideas for business partners in a healthcare company.
- Provide 5 gift idea under \$100 for a teenager who loves football

### Act as:

Act as a [type of person] that is [behavior]. [Action]

- Act as a customer support assistant that is empathetic and polite. Now answer this email
- Act as a salesperson that is very persistent. Imagine we're on a phone call and try to sell a pen to me.
- Act as my personal chef. I'll tell you about my dietary preferences and allergies, and you'll suggest recipes for me to try.
- Act as a film critic. You'll review a movie and provide both positive and negative feedback about the plot, direction and music.

## Academic Life

### Improve Your Work:

Provide X ways to improve [subject]

- Provide 3 ways to improve my resume summary: [insert text]
- Provide 2 ways to improve my essay: [insert essay]
- Provide 5 ways to improve the title of my article: [insert title]

### Step-by-step Guide:

Provide step-by-step instructions on how to [subject]

- Provide step-by-step instructions on how to increase my vocabulary.
- Provide step-by-step instructions on how to prepare for a job interview.
- Provide step-by-step instructions on how to become a software engineer.

### Summarization:

Can you summarize [title]?

- Can you summarize the book *The Little Prince*?
- Can you summarize World War II in 400 words?
- Can you summarize this article? [insert text]

### Generate Names:

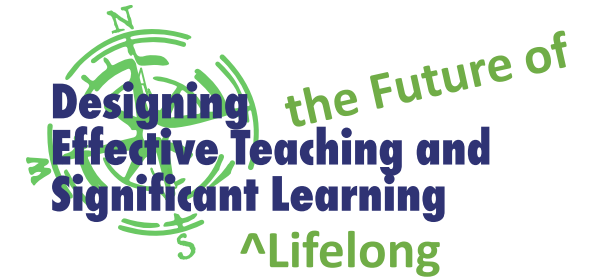
Suggest a [adjective] name for my [type] using the words [word1, word2, ...]

- Suggest funny names for my college team using the words flawless and brain
- Suggest a catchy name for my website using the words artificial and age
- Suggest a simple name for my startup using the word cloud

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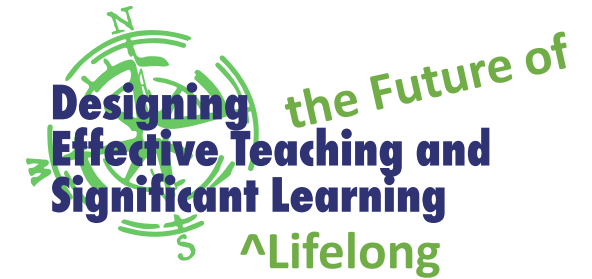
# ChatGPT Assessment Strategies



*Formative Assessment:* ChatGPT can be used as a question-answering tool to assess students' understanding of a topic by asking questions and providing instant feedback. Students can submit work and the rubric to get preliminary feedback for improvement.

*Summative Assessment:* ChatGPT can also be used as a tool for creating quizzes, exams, or assessments to evaluate student learning at the end of a unit or course.

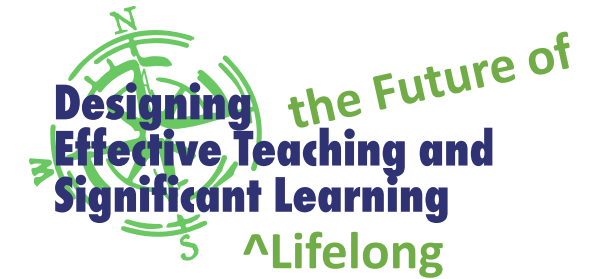
# ChatGPT Learning Activities Strategies



There are many potential course activities including:

- Question and answer sessions
- Writing prompts
- Virtual debates
- Virtual tutoring
- Quizzes and tests
- Conversational AI for student engagement

# Increasing Student Engagement



1. Active learning opportunities
2. Personalized responses to student questions and comments.
3. Immediate feedback on student work.
4. Accessibility
5. Collaborative learning opportunities
6. Gamification of course content.
7. Flexible learning.
8. Encouragement and support.
9. Evaluate and adjust.

*“Developing active learners to be active leaders.”*

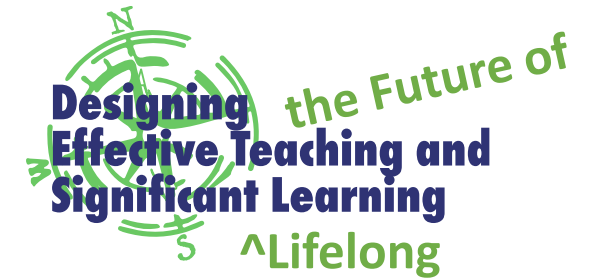
# AI Assisting Your Work



- Reflect and communicate about the learning task with students.
- Provide students with detailed and specific feedback about what they need to do to achieve growth as a learner.
- Encourage students to self-assess, reflect, and monitor their work.
- Ensure that students act on feedback that they receive.
- Use a variety of teaching strategies to engage and challenge all students.

# AI Assisting Your Work

AI Voiceover is a way to introduce more diversity in your courses. Avatars can read content you have developed. Instructors can choose from a variety of avatars representing diverse genders, races, ages, etc.

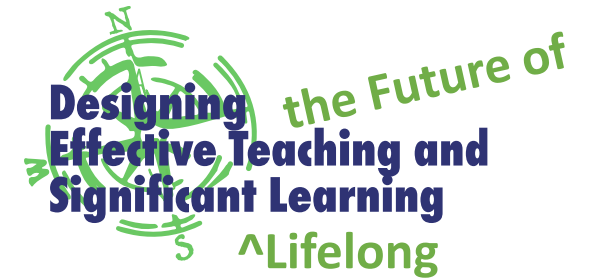


# Future of Learning Begins Today

## *Making Learning Immediate and Significant*

- An AI system can **make adjustments (accommodations)** for learning.
- Students will be able to **access intelligent tutoring** systems.
- AI can be used to **create adaptive testing** systems.
- AI will provide **real time language translation**.
- AI tools will work **best when integrated** with the LMS.
- Chat bots linked to Chat GBT can **answer specific questions** which will help faculty and students with a course's FAQs and other information.

Source



*How can AI help you demonstrate Quality Matters standards?*



**In Chat, please respond.**

- How are you currently using AI tools like ChatGPT for assessments and/or learning activities in your courses?
- If you aren't using them, how could you integrate them into your work and your students' learning?

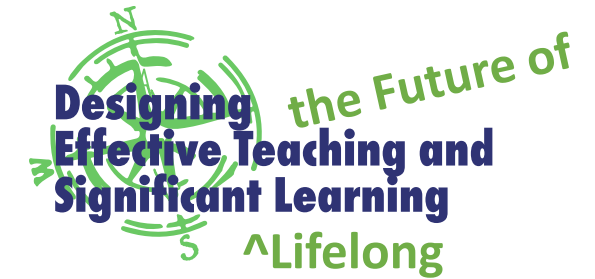
***Thanks for participating!***



## Learn More... *a deeper dive!*

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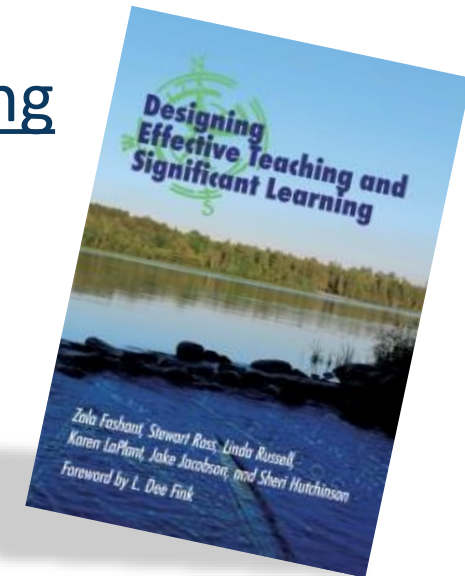


### ***Book:***

- [Designing Effective Teaching and Significant Learning](#)



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# The Future of Learning is Here!

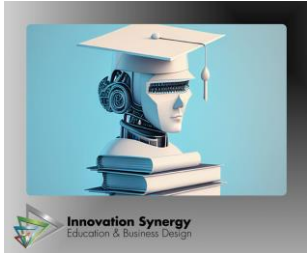
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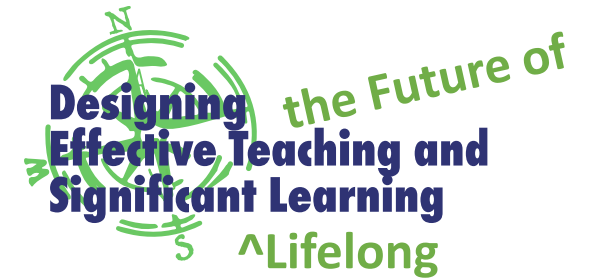
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