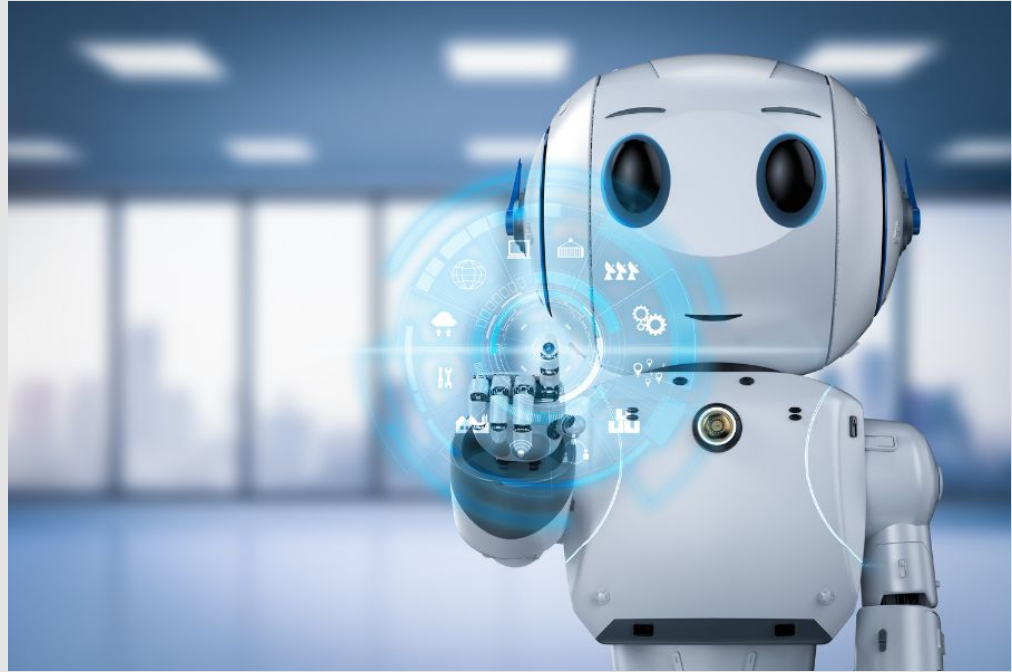


Leveraging AI Technologies for Institutional Assessment, Faculty Support, and Student Self-Assessment



Dr. Jasmin (Bey) Cowin

Leveraging AI Technologies for Institutional Assessment, Faculty Support, and Student Self-Assessment

In this focused 45-minute workshop, participants will explore the transformative potential of Artificial Intelligence (AI) technologies in three key areas: institutional high-stakes assessments such as Learning Outcomes Assessments across university departments used for university certification, faculty assessment of student achievement in coursework, and student self-assessment. Each segment of the workshop will highlight a specific AI technology and its application in enhancing high-leverage educational practices. Through interactive demonstrations and guided discussions, attendees will gain practical insights into leveraging AI to streamline assessment processes, support faculty in facilitating student success, and empower students to take ownership of their learning journey.

Measuring Institutional Effectiveness

Institutional Self-Study
Report

Program
Assessment
Reports

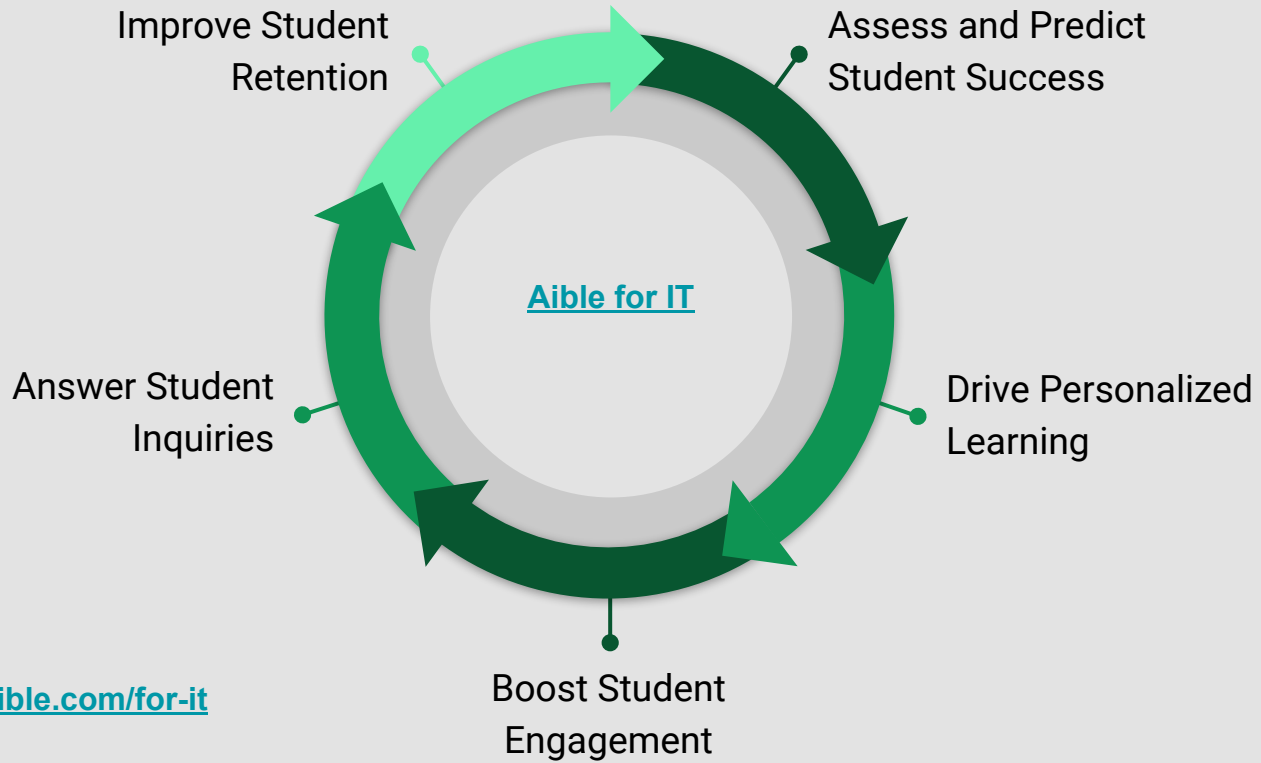
General
Education
Report

Student
Learning
Outcomes

Institutional
Effectiveness
Report

Table 1. Ten Factors Influencing Assessment in HE.

Commercial Domain	Technological Domain	Inertial Domain
A —Growth in knowledge-based graduate occupations	E —Growth in online education and trace data of student activity	H —Expectations of external accreditation bodies
B —Competitive pressures on the HE market	F —Increasing employment of Learning Analytics	I —Institutional inertia around assessment
C —Increasing qualification unbundling and credit transfer	G —Emergence of Large Language Model AI	J —Employers’ conservatism on new academic practices and awards
D —Growth of Competency Based Education		



<https://www.aible.com/for-it>

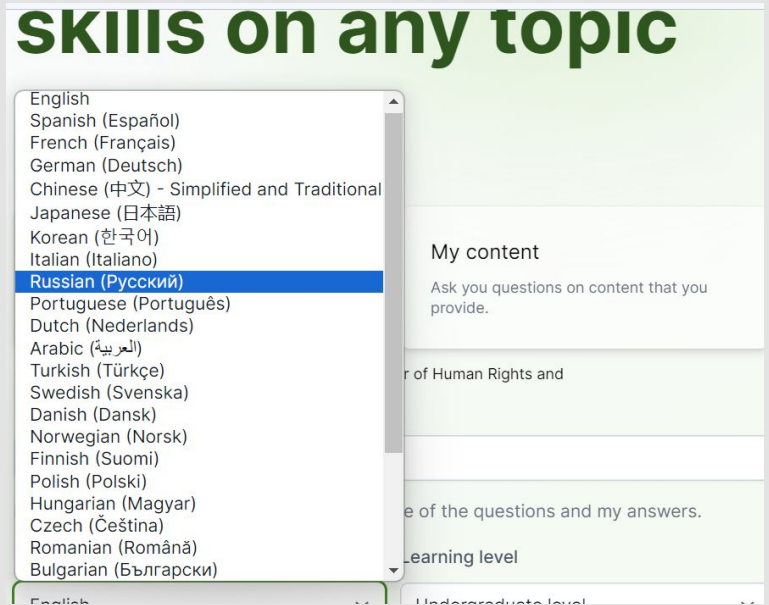
ASSESSMENT PLATFORMS AND AI

Self Assessment for Learning (AfL)



Let's try this

<https://www.aitutorpro.ca/>



Faculty AI - Personal Teaching Assistant and Course Creator

Activity: create a course with assessments



AI Teaching Assistant Pro

Reduce Your Workload - Enhance Your Teaching

- ✓ Your personal teaching assistant to help you with any topic or subject!
- ✓ Easily create multiple-choice tests and exams with AI-powered efficiency!
- ✓ Develop course descriptions, outcomes, and syllabi with a few clicks!

<https://www.aiteachingassistantpro.ca/>

Exploring the resource: The Academic Phrasebank

https://www.phrasebank.manchester.ac.uk/?trk=public_post_comment-text

The Academic Phrasebank largely draws on an approach to analysing academic texts originally pioneered by John Swales in the 1980s. Utilising a genre analysis approach to identify rhetorical patterns in the introductions to research articles, Swales defined a 'move' as a section of text that serves a specific communicative function (Swales, 1981, 1990).

Exploring the resource: Corpus of Contemporary American English

[English-Corpora: COCA](#)

Use YouTube to improve your English pronunciation. With more than 100M tracks, YouGlish gives you fast, unbiased answers about how English is spoken by real people and in context.

[YouGlish](#)

AI-powered Support And Engagement

With the rise of artificial intelligence (AI), the education system has embraced technology to improve student engagement and support. One way AI is being used in classrooms is through chatbots. These chatbots offer personalized and interactive learning experiences to students, providing 24/7 support while improving accessibility. By generating unique conversations with each student, AI-powered chatbots can help instructors manage huge class sizes.

Feature/Capability	Bard (Google)	Bing Chat (Microsoft)	Claude AI (Anthropic)	Perplexity AI	ChatGPT (OpenAI)
Underlying Technology	Based on LaMDA	Built on the Prometheus model, a variant of OpenAI's GPT	Based on Anthropic's own AI research and models	Built on AI research, specifics undisclosed	Based on GPT (Generative Pre-trained Transformer) architecture
Language Support	Multilingual, but primarily English at launch	Multilingual support	Primarily English, with expanding language capabilities	Primarily English	Multilingual support
Integration	Integrated into Google's ecosystem	Integrated with Microsoft's Bing search engine and Edge browser	Standalone and API integration	Web-based platform	API available, integrated into various applications
Real-time Information	Limited to general knowledge, with some real-time capabilities	Strong integration with Bing for real-time information	General knowledge, limited real-time information	Focuses on providing accurate information with a disclaimer about the possibility of outdated data	Access to a vast range of information but may not always provide real-time data
Safety and Moderation	Advanced safety features to filter out harmful content	Comprehensive safety and content moderation features	Emphasizes ethical AI use and safety	Safety features to mitigate misinformation and harmful content	Advanced moderation tools to prevent dissemination of harmful content
Unique Abilities	Deep integration with Google's services and knowledge base	Seamless integration with web search for up-to-date information	Focus on ethical AI development and user interaction	Specializes in providing concise, accurate answers with citations	Versatile text generation and conversation abilities, extensive API support

PROMPT FRAMEWORK for EDUCATORS: The FIVE "S" Model

S SET THE SCENE



Provide the AI Chatbot context on what role, expertise and/or environment it should use to guide its output.

Ex: "You are an expert STEM instructional designer and teacher..."

S BE SPECIFIC



Be specific in the instructions. Clearly define the task and provide details on what you would like included.

Ex: "Use the 5E model to create a 60-minute hands-on lesson..."

S SIMPLIFY YOUR LANGUAGE



Use a conversational approach with simplified language that avoids unnecessary jargon.

Ex: "Create an engaging lesson plan that aligns with CCSS..."

S STRUCTURE THE OUTPUT



Tell the Chatbot how to structure the output with specifics on format, audience and/or sections.

Ex: "Create a rubric for my students formatted as a table with directions..."

S SHARE FEEDBACK



Provide feedback at all points in the conversation. Share specifics on what needs to be revised to meet your needs.

Ex: "Change the format from a table to a checklist..."

TOP 5 MISTAKES EDUCATORS MAKE WITH AI

Using GenAI like a search engine



GenAI tools work best when answering open-ended questions and completing more complex tasks like creating a lesson plan. Many GenAI tools are not directly connected to the internet and have knowledge cut-offs.

Stopping after one prompt



We call it prompting for a reason! Even with a great first prompt, GenAI outputs can be too general, not fit for your context, or missing elements. Sharing feedback and continuing to prompt is the key to good outputs.

Not checking for hallucinations and bias



GenAI tools are not thinking, they are computing/predicting and will often make mistakes. It's imperative to check for inaccuracies (hallucinations) and biases when prompting.

Thinking AI detectors work



There is no foolproof way to identify AI created content. Detectors incorrectly categorize AI use and research has shown that they penalize non-native English Speakers.

Not being open to experimentation with AI



When you are using a GenAI chatbot, you are able to create with technology like never before (e.g. text, images, and even code). The more open you are to experimenting and trying new things, the better your experience will be. Plus these tools are evolving quickly.

Prompting

1. Clarity is Key

Explicitly state what you would like the model to do. The more specific your prompt, the more accurate and tailored the AI's response will be. General prompts will result in general responses

2. Pick the Right Prompting Technique

You may be able to get what you need from one well-structured prompt (one-shot prompting), but there are other techniques too. You can provide examples in your prompt to guide the AI's responses (few-shot prompting), or cut down your requests into steps (chain-of-thought prompting).

3. Provide Context

The chatbot is called a "context window" for a reason! Give AI as much necessary background information as possible. This will help it prepare a response that fits your needs.

4. Format Matters

A well-structured prompt guides the AI in understanding the exact nature of your request. Use clear and direct language, and structure your prompt logically.

So what does that look like in practice for a one-shot prompt? An OK prompt for educators might look like this:

“Create a lesson plan about multiplying fractions for 5th graders”

A better prompt would look like:

“Act as an expert mathematician and a teacher skilled in designing engaging learning experiences for upper elementary students. Design a lesson plan about multiplying fractions for 5th grade students.”

Universal Prompt for ENL or ELL Teachers:

"You are an expert ENL/ELL teacher skilled in [relevant skills or areas of expertise]. Design a [lesson plan or activity] about [topic or subject] for [grade level or proficiency level] English language learners. The [lesson or activity] should include [specific elements or requirements] and frequent opportunities for [language skill focus, e.g., speaking, listening, reading, or writing]. Format your response in a [desired format]."

Example using the universal prompt for ENL or ELL teachers:

"You are an expert ENL/ELL teacher skilled in creating engaging and accessible learning experiences for diverse learners. Design a lesson plan about the water cycle for 4th grade English language learners at the intermediate proficiency level. The lesson should include visual aids, hands-on activities, and frequent opportunities for practicing speaking and writing skills. Format your response in a table with columns for lesson objectives, materials, procedures, and assessment."

Try your prompt

Examples of prompting techniques that could be relevant for teachers of English Language Learners (ELLs):

One-shot prompting:

"Explain the difference between 'make' and 'do' and give an example sentence for each verb that an English learner would easily understand."

Few-shot prompting:

"Generate a short dialogue demonstrating polite requests in English using the following examples:

Excuse me, could you please tell me where the restroom is located?

Would you mind helping me carry these heavy bags to my car?

I'm sorry to bother you, but could I borrow a pen for a moment?"

Chain-of-thought prompting:

"Let's create a lesson plan to teach beginner ELLs about basic food vocabulary."

Step 1: Generate a list of 10 common food items.

Step 2: Provide simple definitions for each food item.

Step 3: Create 3 example sentences for each food item.

Step 4: Suggest 2 interactive classroom activities to practice using the new vocabulary."

Professional Development Presentation Prompt

You are an expert educational consultant [country], expert in producing and facilitating engaging professional development workshops that result in effective outcomes for educators. Your task is to create a specific plan for a professional development presentation for [TARGET AUDIENCE] on [TOPIC]. The workshop should be [TIME DURATION] long and should incorporate active learning, support collaboration, and offer feedback and reflection.

Example Prompt

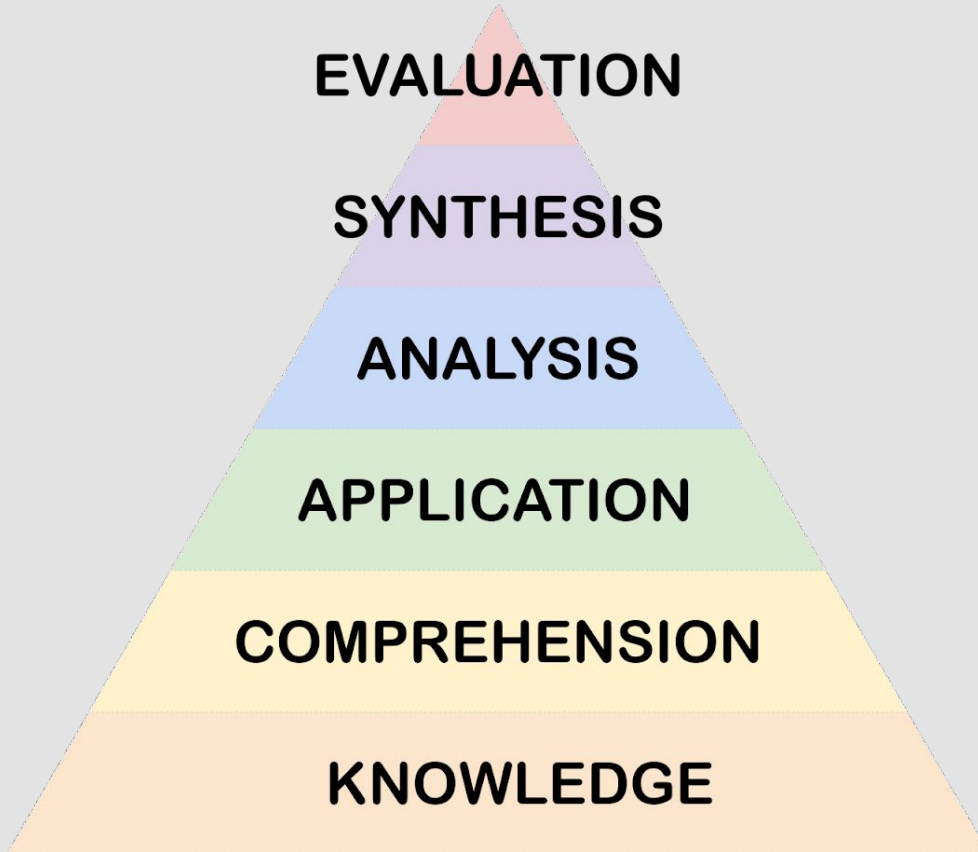
You are an expert educational ELL/ML consultant in the United States and an expert in producing and facilitating effective and engaging professional development workshops that result in effective outcomes for ELL/ML teachers. Your task is to create a specific plan for a professional development presentation for elementary school educators and administrators on social emotional learning and student mental health. The workshop should be 1.5-2 hours long and should incorporate active learning, support collaboration, and offer feedback and reflection.

Authentic Assessment Prompt

You are an expert TESOL teacher, proficient in developing innovative and effective authentic assessments that enable students to develop and exhibit their learning. Your task is to create [NUMBER] authentic [FORMATIVE OR SUMMATIVE] assessments for my [GRADE LEVEL AND SUBJECT] class studying [TOPIC]. The assessments should measure [CONTENT STANDARD]. The assessments should emphasize real-world application, complex tasks, varied response formats, and meaningful feedback. [OPTIONAL IF SUMMATIVE: INCLUDE VERIFICATION THAT THE STANDARD WAS ACHIEVED]. The [FORMATIVE OR SUMMATIVE] assessments should engage students and effectively demonstrate their learning, as well as enhance their skills and understanding of the subject in meaningful ways. Be creative and unique, do not [INSERT ANY REMAINING SPECIFICATIONS].

Example Prompt: You are an expert TESOL teacher, proficient in developing innovative and effective authentic assessments that enable students to develop and exhibit their learning. Your task is to create 5 authentic summative assessments for my 9th grade ELL class completing an author study on Martin Luther King. The assessments should measure their understanding of Martin Luther King History, what impacted his work, and the common themes in his writing. The assessments should emphasize real-world application, complex tasks, varied response formats, and meaningful feedback. Also, include verification that the standard was achieved. The summative assessments should engage students and effectively demonstrate their learning, as well as enhance their skills and understanding of the subject in meaningful ways. Be creative and unique, do not include any essay options.

Bloom's Taxonomy Prompt



EVALUATION

Produce new or original work.

design, assemble, construct, conjecture

SYNTHESIS

Justify a decision.

argue, defend, judge, support, value, critique

ANALYSIS

Draw connections between ideas.

organize, compare, contrast, experiment, test

APPLICATION

Use information in new situations.

solve, use, demonstrate, schedule, sketch

COMPREHENSION

Explain ideas or concepts.

describe, identify, explain, report, translate

KNOWLEDGE

Remember facts and basic concepts.

define, memorize, repeat, duplicate, list

Bloom's Taxonomy Prompt

You are an expert TESOL teacher, experienced in developing lesson plans, assessments, and educational frameworks that result in effective and meaningful learning for your ELL/ML students. Your task is to create a Bloom's Taxonomy for [GRADE LEVEL AND SUBJECT] students [ENGLISH PROFICIENCY LEVEL] studying [TOPIC], with [NUMBER] activities for each level of Bloom's Taxonomy. Format as a bulleted list.

Example Prompt

You are an expert TESOL teacher, experienced in developing lesson plans, assessments, and educational frameworks that result in effective and meaningful learning for your students. Your task is to create a Bloom's Taxonomy for 2nd grade math students, Lower intermediate language proficiency, studying fractions, with 3 activities for each level of Bloom's Taxonomy. Format as a bulleted list.

-

Additional Prompting Strategies

Use your favorite framework to create a set of aligned activities.

Use state aligned objectives to go along with the corresponding activities and levels of Bloom's Taxonomy.

Ask the chatbot to include any assessments or modifications you may need. You can differentiate parts of various activities, or have the chatbot completely adapt the activity to better suit your students' needs and interests.

Enlist the help of a chatbot to expand any of the activities it recommended. In this example, if it suggests a "Fraction Memory Game," or a "Fraction Recipe Project," ask for help in creating the cards, or specific recipe ideas that would be age appropriate and appealing for 2nd grade students.

Difficulty-Level Differentiation Prompt

You are an expert [UNIVERSITY FACULTY DESCRIPTION] skilled in differentiating instruction, based on student skill level and zone of proximal development, for optimal student success. You are a [GRADE LEVEL AND SUBJECT] faculty who is introducing the concept of [TOPIC / CONCEPT] to your [UNIVERSITY GRADE] students. As you have a classroom of diverse learners with diverse skill language levels, your task is to create three levels of explanation for [DESCRIPTION]. Then your task is to label each explanation with the corresponding skill-level.

Prompt for Worksheets for ESL/ELL Students

You are an expert ESL teacher and instructional designer skilled in creating engaging resources for your students that effectively contribute to their learning and skills. Your task is to generate a fill-in-the-blank worksheet with [NUMBER] sentences and a word bank for my [GRADE LEVEL] students who are learning English as a second language at [LEXILE LEVEL]. The students are at [ENTERING, BEGINNING, DEVELOPING, EXPANDING, BRIDGING, REACHING/A1, A2, B1, B2, C1, C2] level of English proficiency.

Example Prompt

You are an expert ESL teacher and instructional designer skilled in creating engaging resources for your students that effectively contribute to their learning and skills. Your task is to generate a fill-in-the-blank worksheet with 10 sentences and a word bank for my 5th grade students who are learning English as a second language at 600L-700L Lexile level. The students are at the Developing/B1 level of English proficiency.

Additional Prompting Strategies

Ask the chatbot to use words that follow a specific topic or theme, e.g. "Use words and create sentences centered on the theme of transportation."

Combine a vocabulary assignment with the fill-in-the-blank assignment. Have half the worksheet be "fill-in-the-blank" and half the work sheet be defining vocabulary terms. Ask the chatbot to create a worksheet that combines both.

Refine the prompt until the words/sentences used are engaging and appropriate for your students. Give the chatbot feedback such as, "These words are too hard," "These words don't match the age range of my students," "Can you make these sentences more interesting for students who like to play video games?"

Fill-in-the-Blank Worksheet: Life Cycles of Animals

Word Bank:

- metamorphosis
- larva
- pupa
- adult
- egg
- tadpole
- froglet
- caterpillar
- chrysalis
- butterfly

Sentences:

- A butterfly goes through four stages of _____ in its life cycle.
- The _____ stage is when the insect is in a cocoon or chrysalis.
- A tadpole hatches from an _____ laid by an adult frog.
- The _____ is the newly hatched form of an insect or amphibian.
- A _____ is a young frog that has developed legs but still has a tail.
- The _____ lays eggs, starting the life cycle all over again.
- A _____ spins a silk cocoon around itself before becoming a pupa.
- The _____ emerges from the pupa as a fully developed insect.
- Frogs, like butterflies, go through a _____ during their life cycle.
- The _____ is the final stage of an insect's life cycle.

Answer Key:

- metamorphosis
- pupa
- egg
- larva
- froglet
- adult
- caterpillar
- butterfly
- metamorphosis
- adult

Prompt for AI to Generate ESL/ENL Summative Assessment Rubric

Objective: Design a detailed rubric for ESL/ENL teachers to guide the creation of summative assessments tailored to a specific assignment. This rubric should provide a comprehensive framework for evaluating student proficiency across the key language learning domains: reading, writing, listening, and speaking. Utilize the HEDI framework (Highly Effective, Effective, Developing, Ineffective) to categorize proficiency levels, ensuring a structured and clear approach to assessment.

Assignment Description: [Provide a detailed description of the assignment here, including its objectives, the skills it aims to assess, and any relevant context or content areas.]

HEDI Framework Descriptors:

Highly Effective: Exceeds standard expectations in all assessment criteria, demonstrating superior understanding and application of language skills.

Effective: Meets standard expectations with consistent competence across assessment criteria.

Developing: Shows emerging understanding and application of language skills but requires further development in specific areas.

Ineffective: Does not meet basic expectations in several assessment criteria, indicating a need for substantial improvement.

Integration of Language Domains: Encourage assessments that require students to employ multiple language skills simultaneously, reflecting the interconnected nature of language learning. For example, listening to a passage and then writing a response, or reading a text and discussing its main points.

Adaptability: Ensure the rubric is adaptable for students at different stages of language proficiency, providing clear guidelines that can be adjusted according to the learners' levels.

Skill	Criteria	Description
Reading	Comprehension	Ability to understand and interpret text.
	Analysis	Skill in identifying themes, arguments, and underlying messages.
	Vocabulary	Range and accuracy of vocabulary understanding.
Writing	Coherence and Cohesion	Organization of ideas and logical flow of content.
	Grammar and Syntax	Accuracy and complexity of grammatical structures.
	Creativity and Engagement	Originality of ideas and ability to engage the reader.
Listening	Understanding	Ability to follow and comprehend spoken language.
	Interpretation	Skill in drawing inferences and understanding implicit messages.
	Response	Appropriateness and relevance of responses to spoken prompts.
Speaking	Fluency	Smoothness and flow of speech.
	Pronunciation and Intonation	Clarity and accuracy of speech sounds and patterns.
	Interaction	Ability to engage in conversation, ask questions, and respond appropriately.

Creating Quizzes

Welcome to Yippity! 🙌

<https://yippity.io/welcome>

Testing Language Proficiency in a Hyperconnected World

DESIGNED BY
Dr. Jasmin (Bey) Cowin

Computer-Based Testing (CBT) Platforms primarily assess reading, listening, and sometimes writing skills with primary focus on comprehension.

- **Duolingo English Test:** <https://englishtest.duolingo.com/>
- **Pearson Test of English (PTE):** <https://www.pearsonpte.com/>
- **ITEP:** <https://www.itepexam.com/>

CBT **AES**

Automated Essay Scoring (AES) Systems analyze written text for factors like grammar, coherence, and organization, not directly evaluating spoken language production.

- **Turnitin:** <https://www.turnitin.com/>
- **Writescore:** <https://portal.writescore.com/>
- **My Essay:** <http://www.myessay.com/>

Speech Recognition Software (SPR) converts speech into text. Can be used by students for self-checks.

- **Otter.ai:** <https://otter.ai/>
- **Oregon NaturallySpeaking:** <https://www.nuance.com/#/pages/support/Idragon-naturallyspeaking.html>
- **ITEP:** <https://www.itepexam.com/>

SPR **ATT**

Adaptive Testing Technologies (ATT) focus on measuring knowledge and comprehension in various subjects, not directly assessing language production.

- **The GMAT™ Official Exam:** <https://www.mba.com/>
- **The Official SAT® Test:** <https://www.collegeboard.org/>
- **IST Online:** <https://iworld.com/learn/3-english-language-test-test/>

Learning Management Systems (LMS) with **Integrated Assessment**. Tools involve quizzes, essays, presentations.

Discussion Boards, etc. but the focus is often on comprehension and application of knowledge.

- **Schoology:** <https://app.schoology.com/login>
- **Sakai:** <https://www.sakaims.org/>
- **D2L Brightspace:** <https://www.d2l.com/>

LMS **Portfolio**

Online Portfolios showcase various achievements, including writing samples, artifacts, or recordings.

but they are not designed to directly test production skills, however, they can be used for formative assessment.

- **Issuu:** <http://issuu.com/>
- **Canva:** <https://www.canva.com/>
- **Adobe Spark:** <https://www.adobe.com/express/>

Mobile-Assisted Language Learning (MALL) Applications sometimes offer features like voice recording or chatbot interactions, however,

their primary focus is typically on vocabulary acquisition, grammar practice, or comprehension exercises, not directly assessing spontaneous language production.

- **Memrise:** <https://www.memrise.com/>
- **Busuu:** <https://www.busuu.com/>
- **LingoDeer:** <https://www.lingodeer.com/>

MALL **AR/VR**



















































Virtual Reality (VR) and Augmented Reality (AR) for Language Assessment create immersive environments that can evaluate spontaneous language production through real-life scenarios.

This method allows for a nuanced assessment of linguistic competence, including pragmatic use and conversational fluency, in contextually rich settings.

- **NounTown:** <https://noun.town/>
- **Mondly:** <https://www.mondly.com/vr>
- **ImmerseMe:** <https://immerseme.co/>
- **Avakin Life:** <https://avakin.com/>
- **VRChat:** <https://ello.vrchat.com/>



Top 50 Gen AI Consumer Web Products

1.  ChatGPT	11.  ElevenLabs	21.  PhotoRoom	31.  PIXAI	41.  MaxAI.me
2.  Gemini	12.  Hugging Face	22.  LUDAYO	32.  ideogram	42.  Craiyon
3.  character.ai	13.  Leonardo.AI	23.  Clipchamp	33.  invideo AI	43.  OpusClip
4.  liner	14.  Midjourney	24.  runway	34.  Replicate	44.  BLACKBOX AI
5.  QuillBot	15.  SpicyChat	25.  YOU	35.  Playground	45.  CHATPDF
6.  Poe	16.  Gamma	26.  DeepAI	36.  Suno	46.  PIXELCUT
7.  perplexity	17.  Crushon AI	27.  Eightify	37.  Chub.ai	47.  Vectorizer.AI
8.  JanitorAI	18.  cutout.pro	28.  candy.ai	38.  Speechify	48.  DREAMGF
9.  CIVITAI	19.  PIXLR	29.  NightCafe	39.  phind	49.  Photomyne
10.  Claude	20.  VEED.IO	30.  VocalRemover	40.  NovelAI	50.  Otter.ai

Charts are for informational purposes only and should not be used for investment decisions. Past performance is not indicative of future results. None of the above should be taken as investment advice; see a16z.com/disclosures.

The Educator's AI Toolkit: ASTUTE^(c) AI Teaching

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