Authentic Intelligence: Designing Performance Tasks in the AI Age

Dr. Nicholas Kremer
Getting Started…
The emergence of artificial intelligence writing technology like ChatGPT requires school districts to re-examine critical questions like, “what do we want students to truly be able to know and do?” today and “how will we know if they can independently do those things?” This session will provide strategies for designing rigorous and relevant performance assessments (ones where a computer cannot easily produce an artificial response) that align to the instructional visions set out by local school systems. It will also provide a framework that can be used for curriculum improvement cycles at the site or district level that maximizes community engagement and authentic applications of learning.
Meet Your Presenter: Nicholas Kremer, Ph.D.

- **Principal** (2020-present)
  - Eden Prairie Online (K-12)

- **Director of Curriculum & Learning** (2012-2020)
  - Eden Prairie Schools (MN)
  - Columbia Public Schools (MO)

- **Adjunct Professor of Education** (2008-present)
  - University of Missouri-Columbia (Literacy & Media)
  - Concordia University (Educational Leadership)

- **English Language Arts (6-12) Teacher** (2005-present)
What is your current level of familiarity with artificial intelligence tools (i.e. ChatGPT)?
What are some good metaphors for the impact that AI will have on the world?

Metaphors can help convey complex ideas about the impact of AI on the world in a more relatable and understandable way. Here are some metaphors to describe the impact of AI:

1. **AI as a Double-Edged Sword**: AI can be likened to a double-edged sword, capable of both great benefit and harm. Like a sword, it can be a powerful tool in the right hands, but it can also cause damage if misused.

2. **AI as a Pandora’s Box**: Just like opening Pandora’s Box released both good and evil into the world, the advent of AI has unleashed a wide range of possibilities, from improved healthcare and productivity to ethical dilemmas and job displacement.

3. **AI as a New Frontier**: AI is often compared to a new frontier, akin to the exploration of space or the discovery of a new continent. It presents endless opportunities for innovation and discovery, but it also comes with the challenges of navigating uncharted territory.

4. **AI as the New Electricity**: Similar to how electricity transformed industries and daily life in the 19th and 20th centuries, AI has the potential to revolutionize virtually every aspect of society, from transportation and healthcare to entertainment and communication.

5. **AI as a Digital Brain**: AI can be thought of as a digital brain that processes vast amounts of data, learns, and makes decisions, much like the human brain. This metaphor highlights the...
Which image resonates most with your current thinking regarding artificial intelligence in education?
Preparing for the Impact of Artificial Intelligence...

- Like Gutenberg's printing press, AI has the capacity to revolutionize and democratize the way that information is not just gained but used to create/compose.

- Like industrialization and automation, AI has the capacity to increase efficiency and decrease the demands of not just physical labor but now also cognitive & creative tasks.
Andy Weir

And just because I like it a lot, here's the manga version (not as a sorceress - just as herself)

Carolyn Greener

Boo! Boycott Midjourney. Don’t steal from artists

Joshua Mason

As an author whose ship's come in, what's your position on generative AI and the existential dread lower-tier artist and authors are experiencing over the whole thing?

Author

I think it's only a matter of time before AIs can write better fiction than humans can. I may be part of the last generation of human authors. A bleak thought but at least I slid in under the line and got a bunch of money before it happened. 😞
Preparing for the Impact of Artificial Intelligence…

- Technological advancements have led to new tools over the past century (the calculator, the Internet search engine, handheld computers, etc.) that have made low of depth knowledge tasks easy to complete. AI technology now offers similar tools for expediently completing high depth of knowledge tasks, too.
DOK-4: **Extended Thinking**: Synthesize and extend strategic thinking across multiple texts, investigations, inquiries, or disciplines in a manner that requires planning, extended time, and the transfer of knowledge to solve problems in a new context or domain, allowing for the personal adaptation of learning to different contexts. (*Augmentation*)

DOK-3: **Strategic Thinking**: Think strategically and abstractly about how and why concepts work or how to effectively utilize particular skills, using evidence to justify or evaluate answers/conclusions/decisions/outcomes/reasons/results in response to complex questions or tasks. (*Analysis*)

DOK-2: **Basic Thinking (Skills & Concepts)**: Engage in basic mental processing beyond a rote response (i.e. classify, organize, estimate, compare/contrast, describe, explain, summarize), using a developing understanding of academic concepts and skills to answer open-ended questions or accomplish straightforward multi-step tasks. (*Application*)

DOK-1: **Recall and Reproduction**: Identify, recall or reproduce data, definitions, details, facts, information; apply simple procedures, algorithms, formulas, or measurements. (*Acquisition*)
Preparing for the Impact of Artificial Intelligence...

- While the emergence of AI is not going to be a non-issue like Y2K, it also isn’t going to immediately upend education systems (that are especially resilient to change)

- However, like the creation of the nuclear bomb, it is now impossible to return to a world where AI doesn’t exist and futile (detrimental?) to ignore it moving forward
“We knew the world would not be the same. A few people laughed, a few people cried. Most people were silent.”

– J. Robert Oppenheimer
AI-Assisted Assessment Examples
Who is Benvolio in Romeo and Juliet?

Benvolio is a character in William Shakespeare's play "Romeo and Juliet." He is Romeo's cousin and one of his closest friends. Benvolio is known for his calm and peace-loving nature. Throughout the play, he tries to prevent conflicts and acts as a mediator in the ongoing feud between the Montague and Capulet families, which is at the heart of the play's tragic events.

One of Benvolio's most significant roles in the play is his attempt to keep the peace in the streets of Verona. He is the one who tries to break up the initial fight between the Montagues and Capulets in the opening scene of the play. He also attempts to comfort and help Romeo when Romeo is love-sick over Rosaline and later when Romeo is distraught over his banishment.

Benvolio's character serves as a contrast to characters like Tybalt, who is hot-tempered and eager for violence. Benvolio's peaceful and rational nature highlights the destructive consequences of the feud and adds to the tragedy of the story.
Assessment Example #2

Write a 5 paragraph essay that analyzes who is to blame in Romeo and Juliet

Romeo and Juliet is a tragic play written by William Shakespeare, telling the story of two young lovers from feuding families who are unable to be together throughout the play, several characters and factors contribute to the tragic ending. This essay will analyze who is to blame for the tragedy that occurs in Romeo and Juliet.

Firstly, the feud between the Montague and Capulet families is the primary cause of the tragedy. The feud has been going on for years, and the families' hatred towards each other runs deep. The constant fighting and conflict made it impossible for Romeo and Juliet to be together openly. If the families had resolved their differences, the two lovers might have been able to be together and avoid the tragic ending.

Secondly, the rash decisions made by Romeo and Juliet contribute to their untimely deaths. Both Romeo and Juliet act impulsively, making decisions without thinking through the consequences. Romeo kills Tybalt in a fit of anger, leading to his banishment from Verona. Juliet decides to fake her own death rather than finding a way to be with Romeo. If they had made more thought-out decisions, the tragedy might have been avoided.

Thirdly, Friar Lawrence’s well-meaning but misguided plans also contribute to the tragedy.
Assessment Example #3

Adapt a scene from Romeo and Juliet for modern audiences

Sure, here's a modern adaptation of the famous balcony scene from William Shakespeare's "Romeo and Juliet." In this updated version, we'll set the scene on a rooftop garden in a bustling city, with Romeo and Juliet communicating via text messages.

[The setting is a rooftop garden overlooking a vibrant cityscape at night. Juliet, dressed in contemporary clothing, stands near the edge, holding her smartphone. Romeo, similarly attired, is on a neighboring rooftop, also holding his smartphone.]

Juliet: [Texts] O Romeo, Romeo! Wherefore art thou, Romeo? Deny thy father and refuse thy name; Or, if thou wilt not, be but sworn my love, And I'll no longer be a Capulet.

[Romeo receives Juliet's text and smiles.]

Romeo: [Texts] Juliet, Juliet! I'm here, just one rooftop away, I'll change my name for you, my love, today. What's in a name? That which we call a rose

Send a message
Alec and Kiara went to Freddy’s Yogurt Shop for frozen yogurt. Alec got 8.6 ounces of strawberry frozen yogurt, and Kiara got 8.2 ounces of chocolate frozen yogurt. Their frozen yogurt cost $0.50 per ounce. How much did they pay in all?

To find out how much they paid in total, we need to first calculate how many ounces they got in total, and then multiply that by the cost per ounce.

The total amount of frozen yogurt they got is:

8.6 ounces (for Alec) + 8.2 ounces (for Kiara) = 16.8 ounces

The cost per ounce is $0.50, so to find out how much they paid in total, we can multiply the number of ounces by the cost per ounce:

16.8 ounces x $0.50/ounce = $8.40

Therefore, Alec and Kiara paid $8.40 in total for their frozen yogurt.
Describe some of the properties of water, and explain how the structure of water is responsible for these properties.

Water is a unique substance with many properties that make it essential for life. Some of the properties of water include:

1. High specific heat capacity: Water has a high specific heat capacity, which means that it can absorb a lot of heat energy before its temperature increases. This property is important for regulating body temperature in animals and for moderating the temperature of the environment.

2. High boiling point: Water has a high boiling point, which means that it requires a lot of energy to vaporize. This property makes water an excellent solvent and allows it to exist in all three states of matter (solid, liquid, and gas) at temperatures that are suitable for life.

3. High surface tension: Water has a high surface tension, which allows it to form droplets and hold together in a column. This property is important for many biological processes, such as transpiration in plants and the movement of blood in animals.

4. Cohesion and adhesion: Water molecules are cohesive, meaning they stick to each other, and adhesive, meaning they stick to other substances. This property is essential for water transport in plants and for the movement of blood in animals.

The unique properties of water are due to its molecular structure, which consists of two hydrogen atoms and one oxygen atom. This structure allows water to form hydrogen bonds, which are responsible for many of its properties.
Critique, compare, and contrast pieces of music from the Baroque and Classical periods.

Certainly, I can provide you with a critique, comparison, and contrast of music from the Baroque and Classical periods.

**Baroque Music:**

1. **Characteristics:**
   - Ornate and elaborate compositions.
   - Extensive use of ornamentation, trills, and embellishments.
   - Frequent use of polyphony (multiple independent melodies).
   - *Basso continuo* (a bass line with a keyboard instrument) is a common feature.
   - Composers often wrote in the forms of suites, sonatas, and concertos.

2. **Prominent Composers:**
   - Johann Sebastian Bach: Known for complex contrapuntal works like "Brandenburg Concertos."
   - George Frideric Handel: Famous for his operas and oratorios, including "Messiah."
Create a model that describes how nuclear fission works

Nuclear fission is a fundamental process in nuclear physics in which the nucleus of an atom splits into two or more smaller nuclei, along with the release of a significant amount of energy. This process is the basis for nuclear power plants and nuclear weapons. Here's a model that describes how nuclear fission works:

1. **Nucleus Composition:**
   - All atoms consist of a central nucleus, which contains protons and neutrons, surrounded by electrons in orbit.
   - The nucleus is held together by the strong nuclear force, which acts between protons and neutrons and overcomes the electromagnetic repulsion between positively charged protons.

2. **Initiating the Process:**
   - Nuclear fission typically involves heavy atomic nuclei, such as uranium-235 (U-235) or plutonium-239 (Pu-239).
   - These nuclei are often bombarded by neutrons, which can be provided by various sources, such as spontaneous decay or artificial neutron sources.

3. **Neutron Absorption:**
   - When a neutron collides with a heavy nucleus like U-235 or Pu-239, the nucleus can absorb the neutron, becoming temporarily unstable.

4. **Nucleus Splitting:**
   - The absorption of a neutron may make the nucleus so unstable that it undergoes a fission reaction, splitting into two or more smaller nuclei, releasing a significant amount of energy in the process.
Assessment Example #8

Hypothesize how Dwight D. Eisenhower would react to today's world political situation.

Hypothetically speculating how a historical figure like Dwight D. Eisenhower would react to today's world political situation is challenging because it involves making assumptions about his beliefs and principles in a vastly different context. Eisenhower served as the 34th President of the United States from 1953 to 1961 and played a significant role in shaping U.S. foreign policy during the Cold War era. However, it's important to remember that the world and its political dynamics have changed substantially since his time in office.

That said, one can make some educated guesses based on Eisenhower's known positions and principles:

1. **International Cooperation and Alliances:** Eisenhower was a strong proponent of international cooperation and alliances, as evidenced by his support for NATO (North Atlantic Treaty Organization). He might advocate for strengthening and maintaining alliances with traditional U.S. allies while seeking to build new partnerships to address modern global challenges, such as climate change and cyber threats.

2. **Anti-Communism:** Eisenhower had a strong anti-communist stance during the Cold War. In today's world, he might express concerns about authoritarian regimes, state-sponsored cyberattacks, and disinformation campaigns. He could push for a united front among...
As a pre-med major, you are shadowing a local doctor in Eden Prairie. The current patient you are seeing is a 22 year old male who has been experiencing a fever, sore throat, a faint rash and headache for a couple days. He initially thought his symptoms were a result of seasonal allergies but has been progressively feeling worse as the days pass. He is convinced he has frapis tonsillitis, a common bacterial infection, and is requesting a prescription for antibiotics.

The doctor, however, wants to run a few tests to determine the exact cause of his symptoms. He orders some blood work to help him diagnose the patient. The results of the tests and the patient's history are below.

**Vaccinations:**
1. Pescus Calbanus 9-1-16
2. Vermis agita 4-13-15
3. Cerantris plan 7-7-15
4. Intera scornio 5-28-17

**Blood Work:**
Frapis tonsillitis: negative
Lexia magnus: negative
White blood cells: high

Based on the symptoms and blood work results, there are a few possible explanations for the patient's condition. The high white blood cell count indicates that his body is fighting infection. It is possible that he has a bacterial infection, such as strep throat or tonsillitis, as...
Assessment Example #10a

As the summative assessment for this unit, you will be writing a policy paper intended to brief the President of the United States on a foreign policy issue of your choice. A policy paper is meant to be a brief document that summarizes an issue, its importance, and the best possible solution. Policy papers are used in business, technical, policy, and political jobs to inform decision makers on topics they are not experts in. As a result, those who write policy papers must be highly-skilled experts in the subject matter.

First, you should select a topic that fits into one of the five fields of foreign policy (economic, environmental, human rights, military/security, or diplomacy). The issue must be considered currently active. Your goal is to identify specific solutions to make an impact now.

The outline of the structure of the paper (and some guiding questions to consider for each section) is included below:

Background (~2 paragraphs)
Describe the history of the situation.
Describe the situation as it currently exists. Use specific evidence.
Be objective. Do not insert personal bias or opinions.
Explain why the United States should take an interest in the situation’s solution.

Policy Options (~2 paragraphs)
Establish at least 2 choices for how the situation can be resolved.
Options should be detailed and describe the role the US should play in the resolution (e.g., allied military response, economic sanctions, etc.)

Criteria for Success (~1 paragraph)
How is success measured in this situation’s resolution?
How will the actions impact the United States’ standing in the world and/or our relations with allies (e.g., economic impacts, political consequences)?

Recommendation (~2 paragraphs)
Which policy choice is the best?

Send a message
Assessment Example #10b

Topic: The Chinese Government’s Human Rights Violations in Xinjiang and its Implications for US Foreign Policy

Background:
Xinjiang is an autonomous region in northwest China with a population of over 24 million, predominantly consisting of ethnic Uyghurs and other Muslim minorities. The Chinese government has been accused of violating human rights in Xinjiang, with reports of mass detention of over one million Uyghurs in ‘re-education’ camps, forced labor, religious and cultural repression, and surveillance. These actions are believed to be part of the Chinese Communist Party’s broader strategy to maintain political control over minority populations in China. The United States should take an interest in the situation because the actions of the Chinese government violate human rights, which is a core American value, and also have global implications for international norms of human rights.

Current situation:
Multiple reports from credible sources, including the United Nations and human rights organizations, have documented the human rights violations in Xinjiang. The Chinese government has denied the allegations, stating that the camps are vocational training centers to combat extremism and terrorism. The situation has drawn international condemnation, with the US government and other countries imposing sanctions on Chinese officials and entities involved in the human rights abuses.

Policy options:
1. Diplomatic pressure and targeted economic sanctions: The US could use diplomatic channels to pressure the Chinese government to end human rights abuses in Xinjiang. The US could also impose targeted economic sanctions on Chinese entities involved in the human rights abuses.
2. Multilateral approach: The US could work with other countries and international organizations to coordinate a multilateral response to the human rights abuses in Xinjiang. This approach would involve diplomatic pressure and sanctions, as well as the promotion of human rights through international organizations such as the United Nations.
“We knew the world would not be the same. A few people laughed, a few people cried. Most people were silent.”

– J. Robert Oppenheimer
AI Implications for Education
Assessment Example

Write a 5 paragraph essay that analyzes who is to blame in Romeo and Juliet

Romero and Juliet is a tragic play written by William Shakespeare, telling the story of two young lovers from feuding families who are unable to be together. Throughout the play, several characters and factors contribute to the tragic ending. This essay will analyze who is to blame for the tragedy that occurs in Romeo and Juliet.

Firstly, the feud between the Montague and Capulet families is the primary cause of the tragedy. The feud has been going on for years, and the families' hatred towards each other runs deep. The constant fighting and conflict make it impossible for Romeo and Juliet to be together openly. If the families had resolved their differences, the two lovers might have been able to be together and avoid the tragic ending.

Secondly, the rash decisions made by Romeo and Juliet contribute to their untimely deaths. Both Romeo and Juliet act impulsively, making decisions without thinking through the consequences. Romeo kills Tybalt in a fit of anger, leading to his banishment from Verona. Juliet decides to fake her own death rather than finding a way to be with Romeo. If they had made more thought-out decisions, the tragedy might have been avoided.

Thirdly, Friar Lawrence's well-meaning but misguided plans also contribute to the tragedy. His plan to reunite the lovers with a feigned death brings about the tragic ending. If he had not been so eager to help them, the tragedy might have been avoided.

Free Research Preview. ChatGPT may produce inaccurate information about people, places, or facts. ChatGPT August 3 Version
It’s time to rethink “plagiarism” and “cheating”

Which of these would you consider “cheating”?  
- Bot-created
  - Student plugged prompt into AI, copied response and submitted it to teacher.
  - AI created a response. Student read, edited, adjusted, and submitted.
  - Student created multiple AI responses, used the best parts, edited, and submitted.
  - Student wrote main ideas. AI generated a draft and offered feedback to improve.
  - Student consulted internet/AI for ideas, then wrote and submitted.
  - Student wrote all assignment content without consulting AI or the internet.

Which of these is relevant to our students’ future?  
- Student-created

Which of these would you use in your work as an adult?  

DITCH THAT TEXTBOOK

Graphic by Matt Miller (@jmattmiller) DitchThatTextbook.com
Can you re-write that essay to argue that the blame solely lies on Friar Lawrence?

While there are various factors that contributed to the tragic ending in Romeo and Juliet, it can be argued that the blame lies solely on Friar Lawrence. Friar Lawrence’s well-meaning but misguided plans led to a chain of events that ultimately led to the death of the two young lovers.

This essay uses words that are fancier than I would normally use. Can you re-write it using simpler language?

The tragic ending in Romeo and Juliet was caused by various factors, but it can be argued that the blame rests solely on Friar Lawrence. His plans, which were well-meaning but misguided, led to a chain of events that ultimately resulted in the deaths of the two young lovers.

My teacher wants me to include textual evidence. Can you go back and add quotes from the play into the essay?

Certainly! Here's the essay with some textual evidence from Romeo and Juliet included:
Instructional Vision = College / Career / Civic Readiness

Essential Learning Targets
What do we want students to know and be able to do?

Assessment Practices
How will we know if students have mastered those concepts/skills?

Instructional Practices
How will we design instruction to ensure each student achieves mastery?

Responsiveness
What will we do if students are struggling? Succeeding?

Feedback
How will we report progress towards mastery to students and stakeholders?
Eden Prairie Schools **Math Instructional Vision**

Excellent mathematics instruction will lead each EPS learner to…

1. Form a positive math identity
2. Collaborate within a math community
3. Understand how and why math concepts work
4. Use math procedures fluently
5. Apply math to real-world situations
Vision-Guided Assessment

A structured assessment response to generative AI

- Red - no generative AI is permissible
- Yellow - some generative AI is encouraged
- Green - generative AI is expected

(Adrian Cotterel. *Teacher-Directed AI Blog*. 2023.)
Generative AI is expected

- The **assessment construct** focuses on the ability to use AI technologies to enhance creative productivity.

- Our expectation for what high level success looks like needs to significantly increase (quality and productivity).

- Assessments could be focused on:
  - Quality of Product
  - Research Project (with thesis defence)
  - Collaborative Projects
Some generative AI is encouraged

- Tasks where the assessment construct being measured will not be significantly compromised or made invalid by some AI assistance.

- Suitably acknowledge the use of AI

- Examples of what this could look like:
  - Spelling and grammar
  - Condensing word count
  - Research
  - Inspiration
No generative AI is permissible

- The purpose of this task type is usually to assess foundational knowledge and skill development.

- Generative AI would significantly reduce the construct validity of the assessment.

- Assessment is completed in-class, under supervised or interview conditions.
What is the main theme of The Liberator?

“The Liberator” is a term that can refer to various works of literature, film, or other media, so the main theme may vary depending on the specific work you are referring to. However, one prominent work with this title is the Netflix animated series "The Liberator," which was released in 2020.

"The Liberator" is a World War II drama series based on the true story of the 157th Infantry Regiment, which is also known as the "Thunderbirds." The main theme of the series revolves around the experiences and challenges faced by the soldiers of this regiment as they fight on the frontlines in Europe during World War II. The series explores themes of valor, sacrifice, camaraderie, and the human cost of war. It delves into the personal stories and struggles of the soldiers, highlighting their determination to liberate Europe from Nazi occupation.

If you are referring to a different work titled "The Liberator," please provide more context or specify the author and medium, so I can provide a more accurate answer regarding its main theme.

The play by Nick Kremer published in 2006
What is the theme of The Butterfly Revolution?

"The Butterfly Revolution" is a novel by William Butler that explores the themes of power, social hierarchy, individualism, and freedom. The story is set in a juvenile detention center and follows the experiences of a group of teenage boys who rebel against the oppressive authority of the center's superintendent, a figurehead who represents the larger systems of power and control in society.

As the story unfolds, the boys begin to question the status quo and challenge the existing power structures. They form their own society, based on the principles of individual freedom and equal opportunity, and attempt to create a more just and equitable community. Through their experiences, they learn about the importance of individualism, the dangers of conformity, and the power of collective action.

Overall, the theme of "The Butterfly Revolution" is about the struggle for individual freedom and the challenges of confronting and overcoming the systems of power and control that limit personal agency and self-expression.

Please add character names and textual citations to this response.
Assessment Example #13

Collect data on the population of your school over the last ten years. Graph the information. What would you predict the school population will be in six years? What trends do you see in the population and what are a few reasons for the trends? Would enrollment figures suggest a need to increase the size?

I'm unable to collect real-time data or create graphs since my knowledge is limited to information available up to September 2021, and I don't have access to specific data about your school. However, I can provide you with a general outline of how you can approach this task and some considerations for analyzing population trends.

**Collecting Data:**
To collect data on your school's population over the last ten years, you will need access to historical enrollment records. You can usually obtain this information from your school's administration or records department. Ensure that you have enrollment figures for each of the past ten years.

**Creating a Graph:**
Once you have collected the data, you can create a graph to visualize the population trends. A line graph is a common choice for displaying population changes over time. The x-axis would represent the years, and the y-axis would represent the enrollment numbers.
I want you to do this project for me. You pick the stocks.

I can provide you with a sample project outline for researching and presenting on five different stocks, but please keep in mind that I don’t have real-time access to the stock market or the Student Stock Trader app to provide you with specific stock recommendations. You should conduct your own research and analysis or consult with a financial advisor for up-to-date stock recommendations.

Here's a sample project outline for five randomly selected stocks for illustration purposes:

**Project Title:** Stock Investment Recommendations for 2023

**Stock Selection:**
- We'll select five different publicly traded companies from various industries.

**Research and Analysis:**
- Gather information on each selected company’s financial health, industry trends, and recent news.
- Use historical stock price data from a reliable source to create stock price graphs for the past 12 months.
- Analyze each stock's performance, identifying trends, key events, and any patterns.

**Investment Recommendations:**

Send a message

Free Research Preview. ChatGPT may produce inaccurate information about people, places, or facts. ChatGPT August 3 Version
I apologize for any confusion, but as a text-based AI model, I cannot draw or create visual diagrams directly. However, I can provide you with a simple text-based representation of the nuclear fission process:

1. Atom (Nucleus) 
   - v
2. Heavy Nucleus (e.g., U-235, Pu-239) 
   - v
3. Bombarded by Neutron 
   - v
4. Neutron Absorption 
   - v
5. Induced Nuclear Fission 
   - v
6. Splitting into Fission Fragments + Release of Energy 
   - v
7. Generation of Additional Neutrons 
   - v

Free Research Preview: ChatGPT may produce inaccurate information about people, places, or facts. ChatGPT August 3 Version
Strategies for Designing AI-Resistant Assessments

- Use data, texts, and topics that are uncommon, local, or invented
- Require multimodal composition, evaluator interaction, and/or physical performance components (i.e. DBAs)
- Observe and grade students in-process (drafts, conferences, etc.)
- Solicit personalized reflection from students about their design choices (i.e. artist’s statement)
- Makes tasks that require improvisation or adapting to unpredictable outcomes
# Authenticity Continuum

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Less Authentic</th>
<th>More Authentic</th>
</tr>
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<tbody>
<tr>
<td>Students have a limited understanding of the purpose behind the learning.</td>
<td>Students have a general understanding of the purpose behind the learning and how it connects to culture and the world outside of school.</td>
<td>Students have a clear understanding of the purpose behind the learning and how it connects to their own culture and college, career, or civic readiness.</td>
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| Process | Instruct provides only one way to engage in learning and privileges a dominant cultural perspective. | Instruction provides more than one way to engage in learning and incorporates diverse perspectives without cultural dominance. | Instruction is responsive to diverse learning styles and inclusive of all cultures & multiple perspectives through empowering learning opportunities. | Instruction is individualized, allowing each student to engage in personally-relevant and personally-adapted ways for agency development across academic, social, cultural, and career pathways. |

| Task & Resources | The learning features tasks and resources that are artificial in nature and disconnected from culture and real-world context. | The learning features tasks and resources that remain somewhat artificial in nature but provide a real-world context from a singular cultural perspective. | The learning requires students to use resources and engage in tasks that simulate or mirror real-world problems by integrating multicultural perspectives and navigating intercultural situations. | The learning requires students to engage in actual tasks from diverse real-world environments using genuine resources, ethical decision making, and innovative solutions for social change. |

| Audience | Students share their learning exclusively with their teacher to satisfy a singular perspective. | Students share their learning with their teacher and their classmates in a binary manner. | Students share their learning with diverse audiences within and outside of their class community representing intercultural perspectives. | Students share their learning with diverse real-world audiences who value what is shared due to its relevance to multicultural backgrounds and environments. |
Wrapping Up…
Artificial assessment only requires artificial intelligence (which is no longer a commodity in today’s world due to emergent AI technology)

Authentic assessment will solicit authentic intelligence (the skills that will be needed to succeed in tomorrow’s AI-prevalent world)
Questions? Comments? Suggestions?
THANK YOU!

EDEN PRAIRIE SCHOOLS
Inspiring each student every day