

Using AI to Generate Engaging Course Content

Exploring Educational Content, Creative
Ideation, and Image Description





Lisa Byrnes



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Your Presenters (by Chatty G 2024)



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Lisa Byrnes



Your Presenters (by Chatty G 2025)

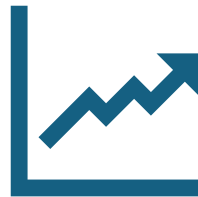
From Rubrics to Custom GPTs



Introduction to AI in Education



Why AI matters in
teaching and learning



Enhancing productivity
and personalization



A tool to support, not
replace, faculty roles



Getting Started with AI Tools

Popular AI tools:
ChatGPT, Bing,
Copilot, Gemini

Free and paid
versions

Access via
chat.openai.com
(ChatGPT)

Writing Learning Objectives



Use Bloom's Taxonomy for structure

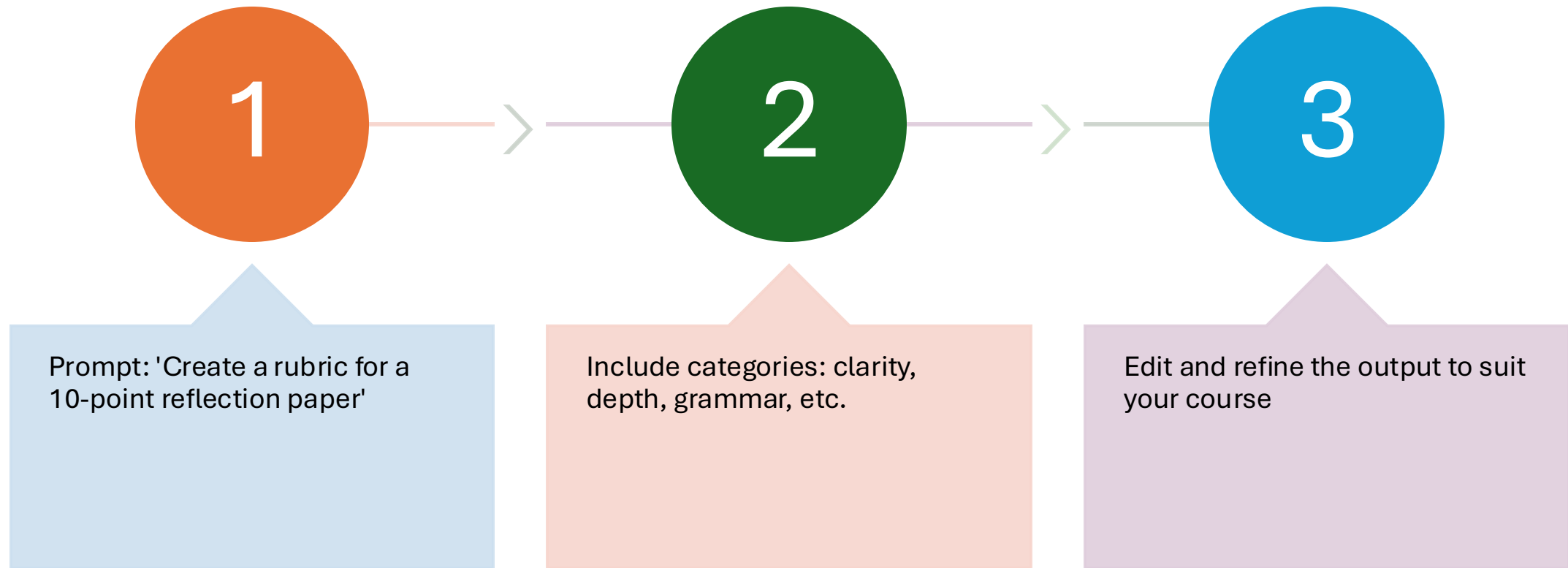


Prompt: 'Write 3 objectives for a lesson on X'



AI generates clear, measurable outcomes

Create Rubrics



Project Assignment Rubric (40 Points Total)

Criteria	Excellent	Proficient	Needs Improvement	Points Available
Analysis Description	Clearly explains the intended analysis, demonstrating a strong understanding of research studies and Excel techniques. Justification is well-supported by relevant literature and Excel practices. (10 points)	Provides an adequate description of the analysis, referencing research studies and Excel techniques, but with minor gaps in clarity or justification. (7 points)	The explanation is vague, lacks depth, or does not effectively reference research studies or Excel practices. (4 points)	10 points
Use of	Effectively integrates	References research	Limited or no reference	7 points

Generating Assessments and Activities



Quizzes: multiple-choice, true/false



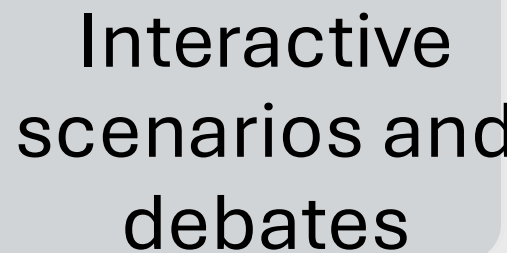
Essay prompts or short answer questions



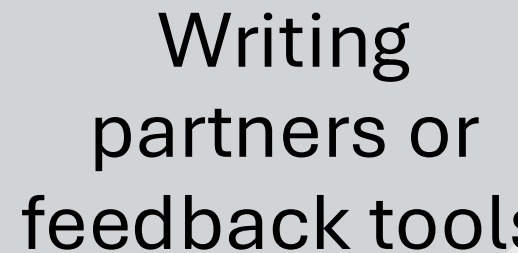
Case studies and role-play scenarios



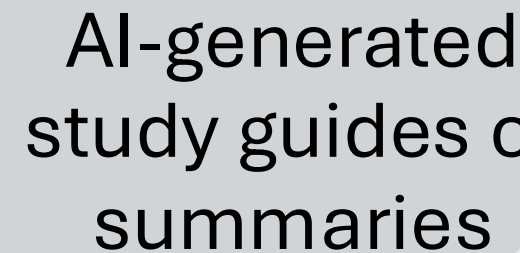
Enhancing Student Engagement



Interactive
scenarios and
debates



Writing
partners or
feedback tools



AI-generated
study guides or
summaries

Administrative Uses of AI

Drafting

Drafting syllabus
policies and
course
communications

Analyzing

Analyzing student
feedback

Managing

Managing
schedules and
planning

Example Custom GPTs for Education

Labor Law Tutor:
Answers case-
based questions

Case Study Sim:
Interactive decision-
making tool

Writing Coach:
Gives feedback
based on your rubric

Creating a Scenario with Custom GPTs

Leveraging AI to Enhance
Learning and Engagement



Goal

- **Starter Story (*Chat GPT4*)**
 - Fictitious company
 - Characters
- **Scenario with New Topic (*Custom GPT*)**
 - Storyline continued each week
 - Same Characters
 - Assignments
 - Rubrics



First Steps

Fictional
Company

Characters
representing
union and
management



Company: TechTronic

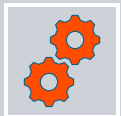
Original



Cutting-edge technology company



Dedicated workforce



Automate processes

SME/ID Update



Software company



Diverse workforce



Compensation structure,
adopting new technologies
and automating processes

Scenario Characters

ChatGPT Suggestions

Common Names & Nationalities:

- Marianne, Elliot, Grace, Alexander, Sophia

Vague profiles

- Years with company
- Current Position

SME/ID Updates

Diverse Names & Nationalities:

- Lola, Malik, Aisha, Aki, Kyda

In Depth Profiles

- Years with company
- Job Title
- Educational Background
- Professional Experience
- Area of Expertise
- Major Achievements

eer

r Science from Massachusetts Institute of
ire Engineering from Stanford University.



Lola, Software Engineer

are developer at a startup focused on developing
n tools. Her contributions were pivotal in successfully
p product, which gained significant traction in the

alysis

from the Wharton School of the University of
ion (MBA) focusing on Strategic Management from



Aisha, Financial Analysis

cial consulting, providing strategic financial advice to
r work involved financial modeling, investment
turing advice.

mmunications/Public Policy Specialist

und:

nce in Communications from the University of Southern California.
Administration with a concentration in Public Policy from Harvard



Malik,
Communications/Public
Policy Specialist

nce:

career in political campaigning, developing a keen understanding of
nication and grassroots mobilization. His work focused on
bor rights and public policy changes that benefit workers.
I stint, Malik moved into the non-profit sector, working for a
rganization. Here, he honed his organizing, advocacy, and public
ading several successful campaigns for labor rights.



Aki, Senior Project
Manager

g up
plex



Kyda, Middle-Level
Operations Manager

fornia,

to
g
tems.

Characters Created by AI




Designing the Custom GPT

- Scenario crafter included:
 - Characters profiles built in ChatGPT 4
 - File used as Knowledge
 - Developed specific steps to be executed in Custom GPT
 - Plugged in various topics for each week

A large orange circle is positioned on the left side of the slide, partially cut off by the edge.

Assignment Topics

- Early Stages of Union Organizing at TechTronic
 - Union Organizing at TechTronic Innovations
 - Negotiation and Compromise in Labor-Management Relations
 - Resolving the TechTronic Strike
 - Navigating the Post-Ratification Phase of a CBA
- 
- A blue dashed line is located in the bottom right corner of the slide, consisting of several short, curved segments.

Custom GPT Demo

Faculty Insights and Adjustments

Course just
finished up

Students enjoyed
the authentic
assignments

Updates and
enhancements

Final Tips and Takeaways

- Start small: try objectives, rubrics, or quiz questions
- Develop confidence, move to custom GPT's
- Improve Efficiency
- Encourage ethical student use
- Explore custom GPTs for long-term value

Introduction to AI Imagery

Trained on millions of images to learn patterns and features.

2025 Updates:

- Text and spelling have gotten much better
- Images are much more realistic
- Videos are entering the arena
- AI and “see” and “understand” better!

POLL

“What’s your biggest curiosity or concern with AI images?”

Popular Tools


DALL·E 3 (in ChatGPT+ and CoPilot with inpainting):
Great for visual ideation and prototyping



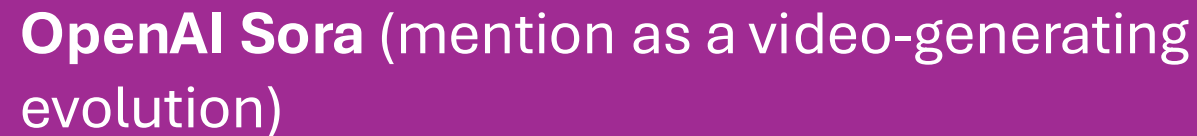
Adobe Firefly 2 (focus on commercial-safe imagery)



AdobeExpress or **Canva AI** for text + design combos



OpenAI Sora (mention as a video-generating evolution)



AI Image Tools Comparison

Tool	Best Use Case	Commercial Use Policy	Key Features	Interface	Accessibility
Adobe Firefly 2	Commercial-safe imagery, professional design assets	Yes, safe for commercial use with content provenance tools	Content credentials, generative fill, vector generation	Web-based in Creative Cloud, professional suite integration	Requires Adobe subscription (Creative Cloud)
DALL·E 3	Creative ideation, inpainting, imaginative visuals	Yes, but user is responsible for rights compliance	Inpainting, advanced prompt following, integration in ChatGPT+	Chat-based (ChatGPT), CoPilot, or API access	Requires ChatGPT Plus or Microsoft CoPilot
Adobe Express	Quick branded content with templates, integrated AI effects	Yes, aligned with Adobe's content safety tools	AI effects, design templates, brand kits	Web app, easy integration with Adobe tools	Free with Adobe account, some features premium
Canva AI	Social media graphics, educational visuals, AI-enhanced design	Depends on content source; user should verify licenses	Magic Write, AI design suggestions, drag-and-drop	Web-based, user-friendly, great for non-designers	Freemium model, premium templates and AI features

Citing an AI Image

Include:

- **Tool used** (e.g., DALL·E, Midjourney, Firefly)
- **Prompt** (or a short description of what was requested)
- **Creator** (you, the user who input the prompt)
- **Date of creation**
- **Platform/Access point** (e.g., ChatGPT, Midjourney)

Concerns About Copyright

Adobe Firefly 2 (launched 2024) images are safe to use commercially — and you can trace how they were made

DALL·E 3 does not knowingly reproduce copyrighted content, but it does not guarantee copyright compliance either.

OpenAI's Terms of Use say: you can use the images for **any purpose**, including commercial use, but **you're responsible** for ensuring your use doesn't infringe on third-party rights.

What can you do with AI Imagery?

Create scenarios for instruction or tutorials



Visuals for presentations



Illustrate abstract or emotional concepts



Character development

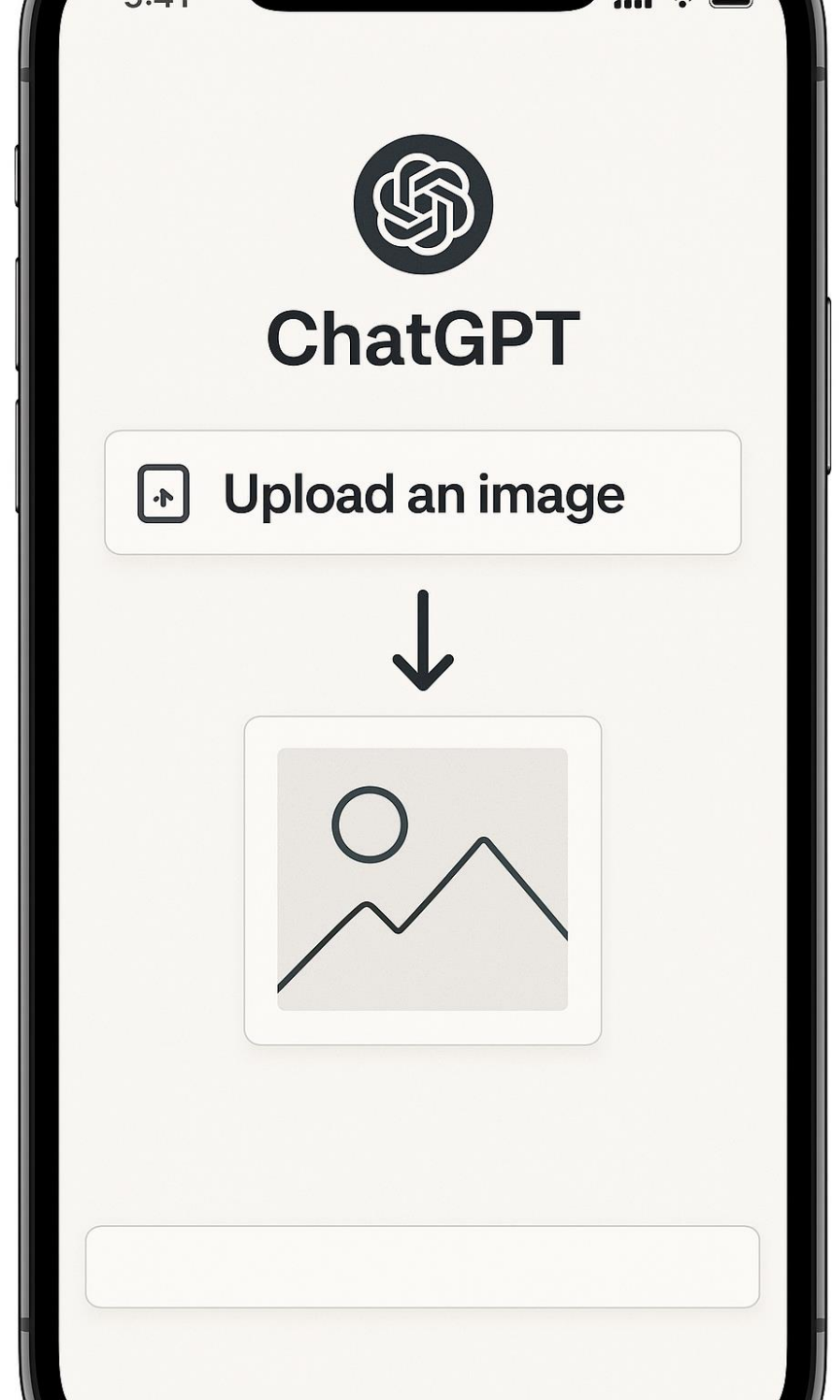


Honestly, almost anything...

But it can also be used in reverse!

- Upload an image → Ask for Accessible Alt text
- Upload an image with text → Ask for the text
- Upload a chart → Ask for a summary
- Upload an infographic → Ask for a simplified summary to create content for a 5th grader.

Image generated using DALL·E 3 (OpenAI), April 2025. Prompt: "A vertical rectangle that depicts an image being uploaded to ChatGPT."





Ethical Awareness

Bias in datasets = biased outputs

Consent & Copyright: Who owns the image? What if it steals from real artists?

Misinformation: AI can make fake but convincing visuals

AI or Real Image?



AI or Real Image?



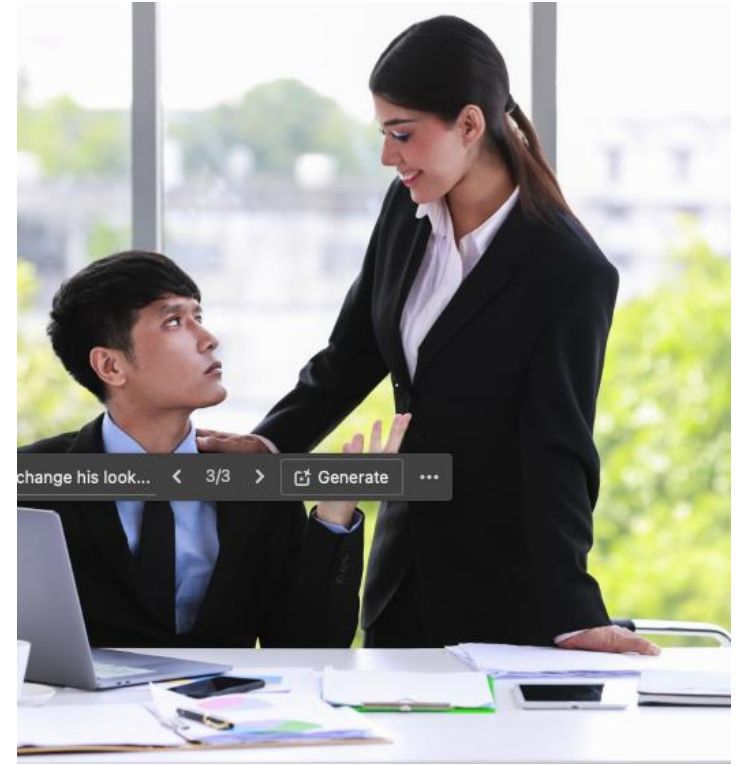
Creative Ideation Using AI



ORIGINAL



GENDER

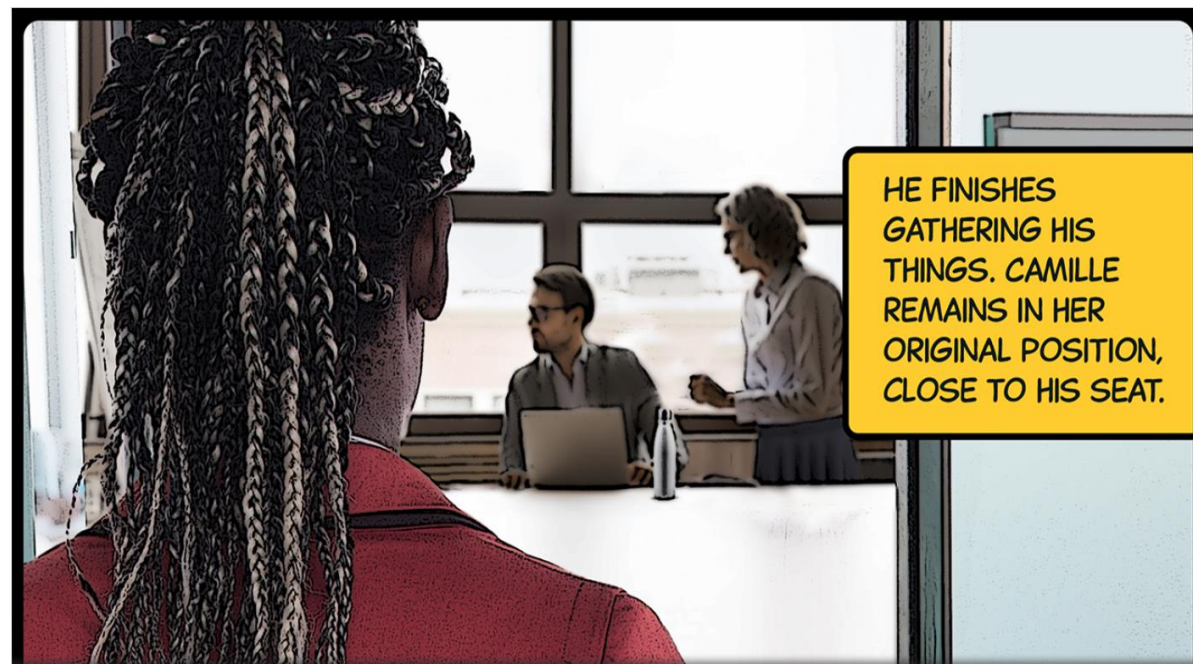


EXPRESSION

Sexual Harassment Scenario using 'Inpainting'



SHE LEAVES HER HAND THERE WHILE SHE CONTINUES TO SPEAK: "I THINK WE MADE A GOOD DECISION TO BRING YOU ONTO THE TEAM. I'M LOOKING FORWARD TO GREAT THINGS TOGETHER."



HE FINISHES GATHERING HIS THINGS. CAMILLE REMAINS IN HER ORIGINAL POSITION, CLOSE TO HIS SEAT.

Current Discussions

- Deepfakes
- Misinformation
- Bias and representation

The **AI Act in the EU** and **FTC guidance in the U.S.** are shaping how imagery is created and used.

Understanding ethical guardrails is as important as knowing how to prompt.



Create a logo for a company called "Global Robot"

Supplemental graphics (details)

Create a "thought prompt" icon



Create a corporate umbrella

Herzberg's Two-Factor Theory

Low Satisfaction

High Satisfaction

Motivation factors

- Achievement
- Recognition
- The work itself
- Responsibility
- Advancement and growth

High Dissatisfaction

Low Dissatisfaction

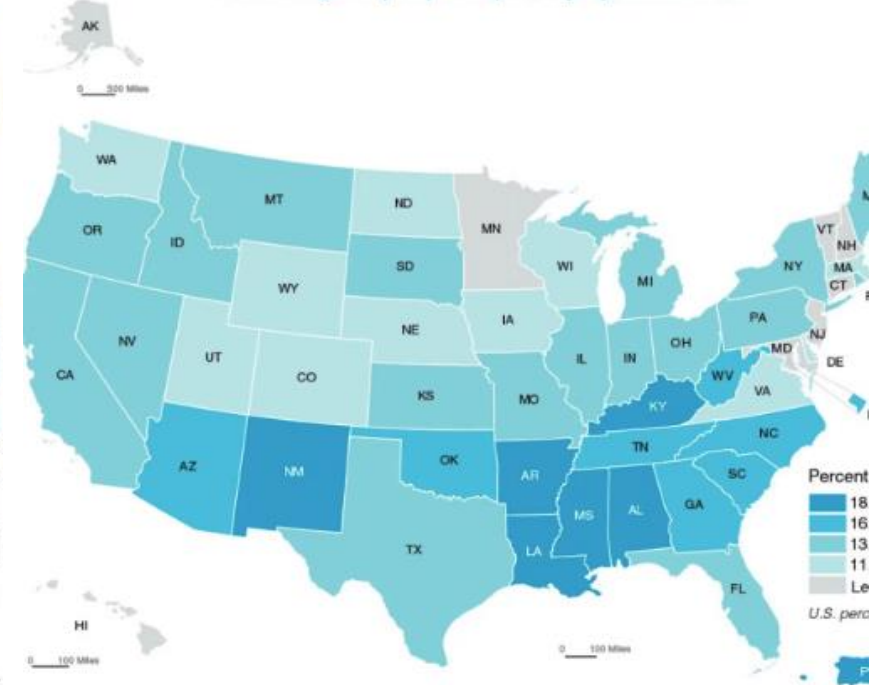
Hygiene factors

- Supervisors
- Working conditions
- Interpersonal relations
- Pay and security
- Company policies and administration



Poverty in the United States

Percentage of people in poverty by state: 2015



ALT
TEXT



- Captions
- Summaries
- Long Descriptions

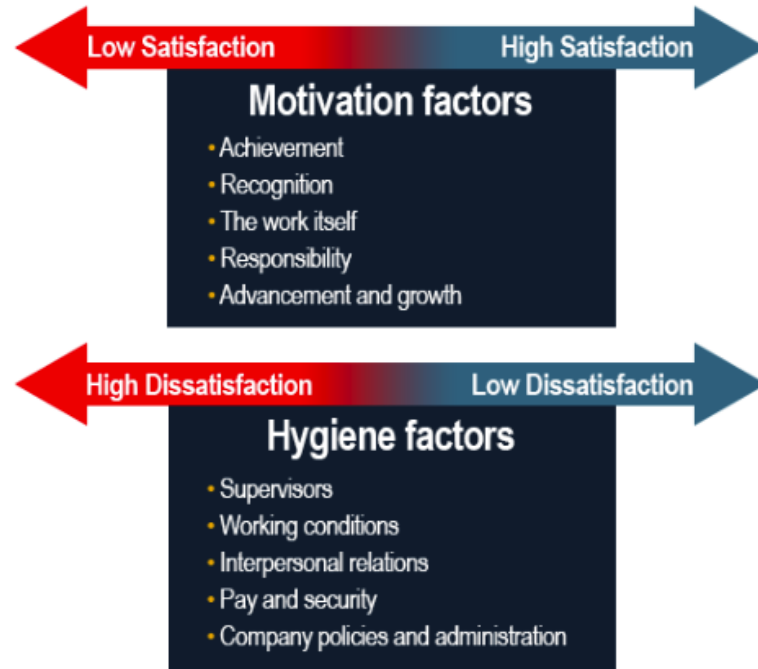


Image Description Specialist

By Penny Ralston-Berg 

WCAG specialist for concise image descriptions.

Herzberg's Two-Factor Theory



Alt Text:

Herzberg's Two-Factor Theory diagram showing Motivation and Hygiene factors as influences on satisfaction and dissatisfaction.

Long Description:

This diagram illustrates Herzberg's Two-Factor Theory, separating factors that influence job satisfaction and dissatisfaction. The layout includes two horizontal sections, each with a gradient arrow indicating the continuum of satisfaction to dissatisfaction.

1. Motivation Factors (top section, labeled from "Low Satisfaction" to "High Satisfaction"):

- Achievement
- Recognition
- The work itself
- Responsibility
- Advancement and growth

These factors are associated with increased satisfaction.

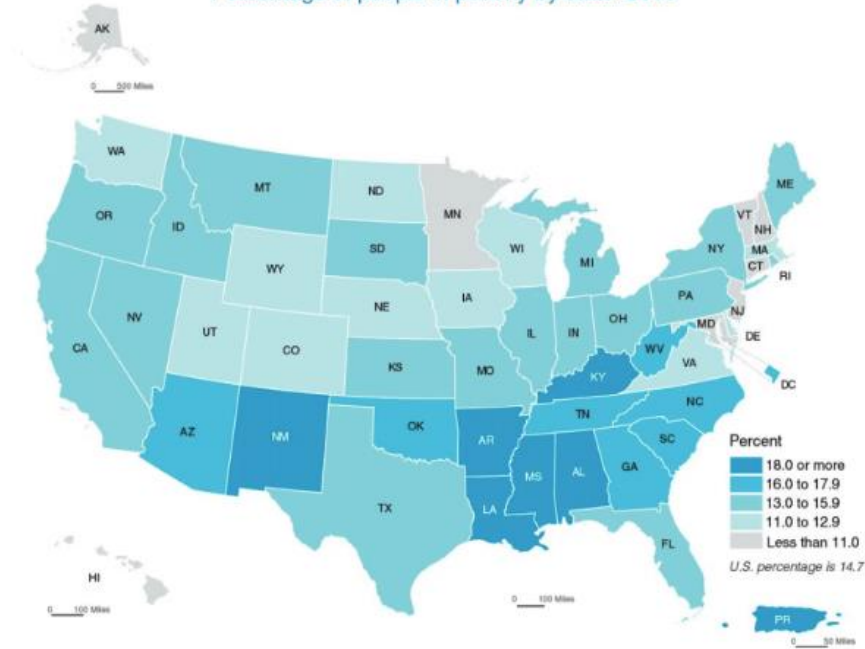
2. Hygiene Factors (bottom section, labeled from "High Dissatisfaction" to "Low Dissatisfaction"):

- Supervisors
- Working conditions
- Interpersonal relations
- Pay and security
- Company policies and administration

These factors relate to the prevention of dissatisfaction.

Poverty in the United States

Percentage of people in poverty by state: 2015



Note: U.S. percentage does not include data for Puerto Rico.

United States
Census
Bureau

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
[census.gov](https://www.census.gov)

Source: 2015 American Community Survey
and 2015 Puerto Rico Community Survey
[census.gov/acs](https://www.census.gov/acs)

Alt Text:

Map of the United States showing poverty rates by state in 2015, with darker shades indicating higher poverty rates.

Long Description:

This map shows the percentage of people in poverty by state in the United States for the year 2015. States are shaded in different colors based on poverty rates:

- Dark blue: 18.0% or more in poverty
- Medium blue: 16.0% to 17.9% in poverty
- Light blue: 13.0% to 15.9% in poverty
- Pale blue: 11.0% to 12.9% in poverty
- Light gray: Less than 11.0% in poverty

Several southern states, including Mississippi, Louisiana, and New Mexico, have the highest poverty rates (dark blue). In contrast, northeastern states like New Hampshire and Vermont have the lowest poverty rates (light gray). A note at the bottom indicates that Puerto Rico is not included in the U.S. percentage data. The national average poverty rate for 2015 is listed as 14.7%.

There's a scale in miles for reference, and the map is sourced from the U.S. Census Bureau, based on data from the 2015 American Community Survey.



Alt Text:

A cartoon of Earth with a thermometer and an ice pack on its head, looking sick. Two aliens in a spaceship observe, with one saying, "They're willing to do this to their own home... and they wonder why we haven't made contact?!"

Long Description:

This cartoon depicts Earth, personified with a sick expression, a thermometer in its mouth, and an ice pack on its head, suggesting illness. The planet's continents are visible, and its facial expression looks tired and concerned. Floating nearby, two green aliens in a flying saucer watch Earth from their cockpit. One alien gestures while speaking, and a speech bubble above them says, "They're willing to do this to their own home... and they wonder why we haven't made contact?!"

The scene takes place in space, with stars and planets surrounding the figures. The cartoon is signed "Darkow, Columbia Missourian, 2023."

AI is Transforming OUR WORLD

- more realistic AI-generated images
- development of AI systems that can interpret emotional cues in images
- diversity and bias issues are evolving

*Major updates are happening ~~every couple of months~~ EVERYDAY! (according to AI).



It's not just images...
AI is becoming your co-creator
across formats.

Let's Play with Images!

A simple prompt: subject --> action-->outcome

Create

Create a storyline image:

- AI walks into a bar....

Describe

An image of an abstract concept:

- What does curiosity look like?

See

See how many biases are depicted:

- How can I visualize poverty?

Questions



Lisa Byrnes



Kate Morgan



Penny
Ralston-Berg



SCAN ME

<https://bit.ly/psuai>



Future Applications of AI

Exploring further integration of AI into diverse educational fields.

Potential for scaling up the custom GPT approach across other disciplines.

Continuous improvement based on technological advancements and feedback.