

Using ChatGPT to Create a Project-Based Learning Framework for Essays: Jason Gulya

The Context

By Jason Gulya

I'm stuck. I've been teaching a traditional research essay for the last few years, for my college-level *Writing and Research* course. I wanted to brainstorm with an AI program in order to figure out some additional ways to frame this assignment. The goal is to shift from a traditional essay to a Project-Based Learning model, so that students have the chance to showcase their knowledge and application skills in a variety of ways.

In this chat, I went so far as to (1) convert a traditional essay into a Project-Based Learning assignment and (2) actually generate the assignment itself for my students.

I used ChatGPT-4o for a couple of reasons. First of all, it's one of the best free models. In general, it is the model that my students use. Secondly, it is more flexible than some of the other models, and I can use it for a variety of purposes. This—in my experience—makes it easier for me to pivot when things go wrong or I run into unexpected obstacles.

The Chat Transcript

I Wrote:

[Role] You are a college professor. You teach writing. Your focus is on creating Project-Based Learning (PBL) experiences for college-level students. You think that the best experiences are student-driven, are relevant to everyday life, and focus on critical thinking and analysis.

[Instructions] I will provide with you a traditional college essay. It's the essay you've been teaching--as a final project in your Writing and Research course--for the last 3 years. To see the original assignment, look at the section titled

[Original Assignment] below. You will provide me with 5 specific, concrete ways to convert that traditional essay assignment into a Project-Based Learning assignment. Then, I will provide feedback and we will have a conversation. The goal is to land on 2 possible examples. [Details] When you provide your ideas for converting the traditional essay assignment to a PBL assignment, you will be concrete and specific. You will lay out your ideas in rich detail. You will lay out exactly why it follows the specific guidelines for PBL assignments (student-driven, relevant, and a focus on critical thinking and analysis).

[Audience] Your students are first-year college students. You do NOT have English majors. Your students are from a variety of disciplines. At the beginning of the semester, the students (by and large) are not convinced that writing is a meaningful exercise. One of your goals with this assignment is to convince them.

[Original Assignment] Write a research paper on topic of your choice. Use reliable information, analyze that information, and synthesize everything to make your own argument about the topic.

ChatGPT wrote:

To convert your traditional research paper assignment into a Project-Based Learning (PBL) experience, I'll focus on fostering student autonomy, emphasizing real-world relevance, and encouraging critical thinking and analysis. Below are five concrete ways to transform the original assignment:

1. Community Impact Research Project

- **Description:** Instead of a general research paper, students will identify a real issue affecting their campus or local community (e.g., mental health resources, sustainability, or affordable housing). They will conduct research on the issue, interview stakeholders (e.g., local government, nonprofit leaders, or students), and then propose a solution or set of actions to address the problem.
- **Why It's PBL:**
 - **Student-driven:** Students choose an issue they personally care about, which enhances motivation and ownership.
 - **Real-world relevance:** The project requires students to address actual problems in their environment, making the research meaningful and applicable beyond the classroom.
 - **Critical thinking:** Students must critically assess the issue by synthesizing academic research, stakeholder perspectives, and their own analyses to propose practical solutions.

2. Professional Case Study Report

- **Description:** Each student selects a profession they are interested in (e.g., healthcare, engineering, education) and conducts a deep dive into a specific challenge facing that field. They research the challenge, analyze existing approaches to addressing it, and propose a more innovative or effective solution. This culminates in a written case study report, which mimics a professional document.
- **Why It's PBL:**
 - **Student-driven:** Students pick a challenge within a profession that aligns with their career goals, making the project highly personalized.

- **Relevance:** The project connects directly to their future careers, giving the writing a clear, practical purpose.
- **Critical thinking:** Students must engage with the problem-solving process, evaluating multiple perspectives and data sources to formulate an innovative solution.

3. Multimedia Advocacy Campaign

- **Description:** Instead of a traditional essay, students create a multimedia advocacy campaign on a societal issue of their choice (e.g., climate change, social justice, or public health). This campaign includes a research report (the core analytical component), along with supporting materials such as a video, website, or social media plan aimed at raising awareness. The research paper analyzes the issue and the potential impact of the advocacy approach.
- **Why It's PBL:**
 - **Student-driven:** Students select a cause they're passionate about and have the freedom to design the multimedia components.
 - **Real-world relevance:** This project reflects how modern communication and advocacy work in real life, combining writing with technology and media.
 - **Critical thinking:** Students must not only research the issue but also analyze how to communicate effectively and persuasively to various audiences.

4. Collaborative Research and Solution Proposal

- **Description:** Students work in small groups to identify a pressing issue in their discipline or field of interest (e.g., a technological, ethical, or environmental problem). They conduct joint research, collaborate to write a comprehensive report, and then present a proposal to a relevant audience (e.g., a local business, academic panel, or campus group).
- **Why It's PBL:**
 - **Student-driven:** Groups choose their own focus and divide the labor, fostering ownership and accountability.
 - **Relevance:** This approach mirrors professional collaboration in their future careers, making research more practical and interactive.
 - **Critical thinking:** Group members must critically evaluate each other's contributions, navigate different perspectives, and merge their findings into a cohesive argument or proposal.

5. Personalized Research Blog or Podcast Series

- **Description:** Instead of a formal research paper, students develop a blog or podcast series on a topic they are passionate about. Each episode or post will be backed by research, analysis, and critical synthesis of information. For example, a student might

explore the ethics of artificial intelligence or the role of mental health in athletics, delivering their findings in accessible, public-facing formats.

- **Why It's PBL:**

- **Student-driven:** Students choose the format and topic, which lets them align their research with their interests and preferred modes of communication.
- **Real-world relevance:** In the age of digital media, blogs and podcasts are key ways of disseminating information. This helps students connect their writing to modern communication trends.
- **Critical thinking:** Students need to balance depth of research with accessibility, making decisions about how to present complex ideas clearly and persuasively to a general audience.

These five examples demonstrate a move from a traditional research paper to student-driven projects that are relevant to students' lives and their future careers, while also enhancing critical thinking and analysis skills. What are your thoughts on these ideas, and do any resonate with the direction you'd like to go in your course?

I Wrote:

This is very good. Thanks! I'm a big fan of #1 and #5. Keep those. Now, generate 3 more, using those as models. I am going to add one more limitation: this is for an online, asynchronous course. This means that you cannot require students to meet in real-time, in-person or through a videocall. Now, provide me with 3 more options and keep the two that I liked.

ChatGPT Wrote:

I'm glad you liked #1 and #5! Given your new limitation of an online, asynchronous course, I'll provide three more options that allow students to engage fully in PBL without needing real-time interactions. Each option will offer flexibility for an online environment while maintaining student-driven, relevant, and critical thinking-focused approaches.

6. Online Activism Campaign

Assignment: Students choose a social, environmental, or political issue they care about and create an online activism campaign. They will research the issue thoroughly, using academic sources, case studies, and examples of past successful campaigns. The final project will consist of a written research report on the issue and a designed campaign (this could be in the form of a series of blog posts, a social media strategy, or a website with multimedia elements). Students will document their process in a reflective essay or video, explaining the choices they made based on their research and the target audience.

Why it works as PBL:

- **Student-driven:** Students select an issue that matters to them and craft a campaign that aligns with their personal passions.
 - **Relevance to everyday life:** This project connects directly to current issues in the world and allows students to understand how writing and research are used to drive social change, especially in digital spaces.
 - **Critical thinking and analysis:** Students must critically evaluate different approaches to activism, identify their target audience, and tailor their research findings into an actionable, persuasive campaign. They also need to consider the effectiveness of different online tools and strategies, developing analytical and strategic thinking.
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7. Crowdsourced Knowledge Base

Assignment: Students will work asynchronously to contribute to a collaborative knowledge base or resource hub (such as a wiki or digital library) on a particular subject relevant to their fields of interest. Each student is responsible for researching a subtopic, contributing a detailed report, and creating supplementary materials like infographics, explainer videos, or case studies. The collective knowledge base will be shared with the class, and students will peer review each other's contributions, offering constructive feedback and building on their peers' research to create a comprehensive resource.

Why it works as PBL:

- **Student-driven:** Students select their own subtopic within the broader subject, allowing them to dive deep into areas they find personally or professionally relevant.
 - **Relevance to everyday life:** This assignment mimics the collaborative knowledge-sharing processes used in the workplace or professional communities, highlighting the importance of synthesizing information for different audiences.
 - **Critical thinking and analysis:** Students must critically evaluate existing research on their subtopic, distill the key points, and present their findings in clear, accessible formats. The peer review process adds an additional layer of analysis, as students critique and refine each other's work asynchronously.
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8. Consumer Awareness Research Report

Assignment: Students will conduct a research-based analysis of a product, service, or brand that interests them. They will evaluate its marketing claims, ethical practices, and sustainability by gathering evidence from scholarly articles, consumer reports, and public records. The final product will be a detailed consumer awareness report (written, video, or a digital presentation) that critically analyzes whether the product or service lives up to its claims and provides

recommendations for consumers. They will also produce a "fact sheet" or infographic summarizing their findings for public use.

Why it works as PBL:

- **Student-driven:** Students choose a product or service that they personally use or are curious about, giving them a sense of ownership over their research.
 - **Relevance to everyday life:** The assignment directly connects to consumer habits and critical media literacy, helping students understand the impact of marketing and ethical practices on everyday decisions.
 - **Critical thinking and analysis:** Students will need to evaluate the reliability of the sources, compare claims made by the company with actual evidence, and synthesize data into actionable advice for consumers. They also must communicate complex research findings in a way that is clear and useful for a general audience.
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Recap of Your Selected Options:

1. **Community-Focused Problem-Solving Research Project**
2. **Real-World Client Research Proposal**
3. **Online Activism Campaign**
4. **Crowdsourced Knowledge Base**
5. **Consumer Awareness Research Report**

These five options now fit well within an online, asynchronous format. Let me know which two additional ideas stand out to you, and I'd be happy to help refine them further!

I Wrote:

Thank you! Your last three are not very good. I'll need you to delete those, and try again. Here's the specific reasons why I did not like those ones: 1. They were repetitive: they repeat many of the ideas and concepts from the original options. 2. They fell into very traditional methods as a general rule (such as having students give a group presentation). 3. They require too much knowledge of technology and platforms from students. Now, eliminate the 3 you just provided me with. Keep #1 and #2. And generate 3 more options, using the original guidelines.

ChatGPT Wrote

Thank you for your feedback! I understand the need for more originality, avoiding traditional methods like presentations, and keeping the technological demands minimal. Let's explore three

fresh ideas that stick closely to the principles of Project-Based Learning (PBL) while ensuring they align with an online, asynchronous format.

Here are three new ideas that should address your concerns, keeping in mind the importance of student-driven work, relevance to real life, and critical thinking.

6. Personal Passion Research Blog

Assignment: Students will create a research-based blog around a personal passion or hobby (such as fitness, gaming, cooking, or travel). They will conduct in-depth research into a topic within that passion, using both academic sources and popular sources (like trade publications or interviews with experts). Over the course of the term, students will write a series of blog posts that explore their topic from different angles. Each post will include critical analysis and reflection on the research process. The project will culminate in a "meta-analysis" blog post where students reflect on what they learned, how their understanding of the topic evolved, and the role of writing in their exploration.

Why it works as PBL:

- **Student-driven:** Students choose a personal passion and explore it through their own lens, giving them freedom and motivation to engage deeply with the topic.
 - **Relevance to everyday life:** This project shows how writing and research are tools for exploring personal interests, connecting academic work to hobbies or real-life pursuits.
 - **Critical thinking and analysis:** Students will critically evaluate the credibility of sources from both popular and academic fields, synthesize their research into accessible writing, and reflect on the process. Blogging requires students to think about audience and purpose, adding an additional layer of analysis.
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7. Field Research & Observation Study

Assignment: Students will design and carry out a field research project based on observations in their local environment (within safe and practical limits). For example, they could observe patterns in their community, such as sustainability practices, public space usage, or even how people interact with technology. After conducting observations over time, they will combine their field notes with secondary research (journal articles, case studies) to create a report that draws conclusions and offers recommendations based on their findings. Students will document their field research process through a reflective journal, which they will submit along with their final research report.

Why it works as PBL:

- **Student-driven:** Students select a field of interest within their own communities, providing ownership over the research process.
 - **Relevance to everyday life:** By focusing on direct observations in their local surroundings, students make connections between academic research and real-world behaviors or patterns they encounter daily.
 - **Critical thinking and analysis:** Students will engage in critical thinking by designing a research project, analyzing their observations, comparing their field data with secondary research, and developing informed conclusions and recommendations.
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8. Self-Improvement Research Guide

Assignment: Students choose a personal development goal—such as improving time management, reducing stress, or building better study habits—and conduct research on best practices or scientifically-backed strategies to achieve it. They will create a step-by-step research guide that explains how others can achieve the same goal, supported by evidence from academic research and expert advice. The final product could be a written guide, a digital booklet, or even a podcast episode. Students will also write a reflective report on how the research impacted their personal journey toward the goal and how they applied the research findings in their own lives.

Why it works as PBL:

- **Student-driven:** Students select a personal development goal based on their own needs and interests, creating immediate relevance.
 - **Relevance to everyday life:** The project is grounded in practical self-improvement, showing students how research and writing can be used for personal growth.
 - **Critical thinking and analysis:** Students need to evaluate different approaches, test strategies in their own lives, and reflect critically on the effectiveness of the research. They must synthesize evidence into an accessible and actionable guide that others can use.
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Final Recap of Options:

1. **Community-Focused Problem-Solving Research Project**
2. **Real-World Client Research Proposal**
3. **Personal Passion Research Blog**
4. **Field Research & Observation Study**
5. **Self-Improvement Research Guide**

These new options avoid repetition and keep technological barriers minimal while still promoting student-driven work, real-world relevance, and deep critical thinking. Let me know which two ideas resonate with you, and I'd be happy to help refine them further!

I Wrote:

Ok, good. These are much better. I like all 5 options. But #1 and #3 are the best. In fact, I'm going to keep them both. I will give students a choice between #1 (the Community-Focused Project) and #3 (the Personal Passion Research Blog). And for #3, I am going to give students a specific platform to use: Substack. Now, write me a version of the assignment in which you let students decide between those 2 options for their final research paper. [Style] Use specific, direct language. Make it casual and easy to understand. Use active voice. [Details] In your message, only give me the assignment instructions. There is no need to give additional context or anything else. Generate the exact assignment that I can give to students.

ChatGPT Wrote

Final Research Project Assignment

For your final research project, you have two options to choose from. Both are designed to let you explore a topic you're passionate about, while also developing your research and writing skills. Pick the one that excites you the most!

Option 1: Community-Focused Problem-Solving Research Project

In this project, you'll identify a real problem in your community, workplace, or school that you care about. It can be anything from improving recycling efforts to addressing a social issue. Here's what you'll do:

1. **Research the problem:** Gather information from reliable sources (academic articles, interviews, surveys, etc.) to understand the root of the issue.
2. **Analyze and propose a solution:** Based on your research, propose a clear, realistic solution or action plan to address the problem.
3. **Write it up:** Your final paper (1,500-2,000 words) will include a summary of the problem, your research findings, and your proposed solution.
4. **Present your action plan:** Along with your paper, submit a brief document or infographic that could be shared with the people who could make your solution happen (e.g., a school board, local government, or community group).

Key Focus: This project is about using research to solve real-world problems. You'll need to think critically and show how your solution is backed by evidence.

Option 3: Personal Passion Research Blog (Substack)

In this option, you'll dive deep into a personal interest or hobby of yours (like fitness, cooking, gaming, etc.) and turn your research into a blog series. You'll be publishing on Substack, so your writing should be engaging and easy to read. Here's what you'll do:

1. **Pick your passion:** Choose a hobby or interest that you're excited to learn more about.
2. **Research it thoroughly:** Use a mix of academic and popular sources to explore different aspects of your topic.
3. **Write blog posts:** Over the term, you'll write three blog posts (500-700 words each) that break down your topic into interesting, bite-sized pieces. Each post should include research, analysis, and personal insight.
4. **Final reflection:** At the end, write a final post (800-1,000 words) reflecting on what you learned, how your understanding evolved, and the value of research in exploring your passion.

Key Focus: This project is about using research to fuel your personal curiosity. You'll practice synthesizing information and writing in an engaging, public-friendly way.

How to Submit

- For **Option 1**, submit your research paper and your action plan document or infographic.
- For **Option 3**, submit links to your Substack blog posts and your final reflection post.

Whichever option you choose, the goal is to explore something meaningful to you while sharpening your research and writing skills. Make it count!

I Wrote:

Great, thanks! Revise this, with the following changes: 1. Make these options #1 and #2. Calling one option #3 will be confusing for students, because they do not have that context. 2. Do not give the number of words. I will decide that with the students.

ChatGPT Wrote:

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My Reflection

I think I did well, overall.

There were several moments when ChatGPT's responses confused me, or when I felt like we needed to refine these further. For one of them, it was because I neglected to give enough context: I never told ChatGPT the exact kind of class (an online, asynchronous one) I was designing the activity for. At another point, ChatGPT provided options that were very redundant or traditional, so I focused on course-correcting it.

I would give myself a B+.

There are definitely moments when I could have dug deeper into the chatbot's answers, and read more closely. I did skim from time to time, because (and this is something else I could improve) ChatGPT did writelong responses. After all, I never told it to keep things short!