

## **Suggestions to Make Assignment Elements More Resistant to AI Completion**

### **Description of the element:**

A 4 to 6 page research paper that synthesizes an industry overview, three public health impacts, relevant policies and regulations, industry influence, and three evidence based recommendations, using at least 5 credible sources.

### **Explanation as to why the element is vulnerable to AI completion:**

This is a standard synthesis paper format with common topic options and predictable sections. A generative AI system can draft a coherent paper with plausible citations and generic examples without doing authentic source reading or accurate evidence linkage.

### **Suggested modifications:**

- Add a required Evidence Map table as an appendix: for each major claim in the paper, list the exact statistic or quoted phrase used, the source, and where it appears in the source such as page number, table number, or section heading. Require at least 8 entries spanning all sections. This preserves the research and synthesis objective while making fabricated support much easier to detect.
- Require a brief Source Use Rationale paragraph for each of the 5 or more sources: why it is credible, what it contributes uniquely, and one limitation or potential bias relevant to the food and beverage industry and public health context. This keeps rigor high and emphasizes critical appraisal rather than fluent summarization.

### **Description of the element:**

The section evaluating policies and regulations and judging effectiveness, gaps, and challenges.

### **Explanation as to why the element is vulnerable to AI completion:**

Policy summaries and effectiveness critiques are widely available in general form. Generative AI can produce a convincing evaluation with common arguments such as enforcement challenges and industry lobbying, even if it does not accurately reflect the specific policy details or evidence base the student claims to use.

### **Suggested modifications:**

- Narrow the policy analysis to one clearly defined jurisdiction and one clearly defined policy instrument selected by the student, and require inclusion of two implementation details that must be traceable to a primary source such as the regulation text, agency guidance, or legislative summary. Students should quote the relevant lines and interpret them. This reduces generic responses while staying aligned with the policy analysis objective.
- Replace part of the narrative evaluation with a short structured Policy Effectiveness Brief: one paragraph each for mechanism of action, expected beneficiaries and those potentially burdened, and one measurable outcome indicator the policy should change, with justification from the students cited research. A structured format increases rigor and reduces space for vague AI generated critique.

**Description of the element:**

The industry overview and industry influence sections describing major companies, target markets, marketing strategies, product formulation, and corporate social responsibility.

**Explanation as to why the element is vulnerable to AI completion:**

High level industry descriptions and examples of marketing tactics or corporate social responsibility initiatives are easy for generative AI to generate convincingly without grounding in a specific company artifact or real world observation.

**Suggested modifications:**

- Require one Company Artifact Analysis: choose one company relevant to the selected sector and analyze one publicly available artifact such as a product label, a marketing page, or a corporate responsibility statement. Students must include a short verbatim excerpt they transcribe into the paper and then connect it to one public health impact and one policy or regulatory issue. For accessibility, allow either an original photo with a text transcription or a text only transcription without requiring images.
- Add a required Counterclaim and Rebuttal subsection: state one industry favorable argument in good faith, then rebut it using evidence from the students sources and the artifact. This preserves the learning objective of evaluating how industry practices support or hinder public health goals and makes generic one sided AI output less acceptable.

### **Additional Options for Strengthening the Assignment**

- Require a one page Research Trail appendix: 5 to 8 bullet points documenting how the student located sources and refined the question, including search terms used, inclusion and exclusion decisions, and one dead end. This is low burden to grade and increases authenticity.
- Add a brief Personal Relevance paragraph: explain why the chosen sector or policy matters to the students intended public health role, community, or career interest, and how that shaped the recommendations. This adds personalization without adding in class time.
- Add a Recommendations Feasibility Check table: for each of the three recommendations, list one foreseeable barrier, one stakeholder who may resist, and one concrete mitigation strategy. This keeps the recommendations evidence based and implementation oriented, strengthening graduate level rigor.