

# ChatGPT writing

---

## Group Member

Lin Peihan, Yang Yi, Chen Qiyu

## AI Program

ChatGPT-4o

## How did you evaluate text quality

Score based on whether ChatGPT corrected the four issues, with one point awarded for each corrected issue. The higher the score is, the better the improvement is.

### original

During chicken preparation, flavor enhancement and bacterial safety play an important role. Our study introduces an innovative approach aimed at enhancing flavor and reducing bacterial contamination in cooked chicken and give the optimum combination of heating time and temperature. Traditional chicken preparation methods, including raw consumption, have long been associated with flavor challenges and bacterial safety concerns. Despite innovations like improvements in slaughtering techniques and bird size, these issues persist, necessitating novel solutions. This study addresses the need for a chicken preparation method that simultaneously improves flavor and reduces bacterial contamination, offering a safer and more palatable alternative to traditional approaches. Here we show that our novel chicken preparation method, involving seasoning and heating, significantly enhances flavor and reduces bacterial contamination. Our study reveals that contrary to previous beliefs, chicken flavor can be improved while ensuring bacterial safety through our innovative method. Additionally, our findings contribute to the advancement of cuisine realm by establishing a standardized approach to chicken preparation. The development of our novel chicken preparation method not only addresses longstanding challenges in cuisine but also has broader implications for public health, offering a safer option for poultry consumption. Moreover, our approach underscores the importance of integrating culinary expertise with scientific knowledge to solve complex food-related issues.

### problems

- Second sentence – “give” should be “gives” or “provides”
- Sentence starting with, “Here we show...” – Significant overlap with sentence 2. Better to restructure the abstract.
- Last sentence – How does this work integrate culinary expertise with science? Nowhere else in abstract is culinary expertise mentioned.
- Overall – The abstract states the result first, then the motivation. That’s a good structure for a short conference presentation but can backfire for many scientific journals. In addition, the first few sentences are unnecessarily repetitive. Better to have a single sentence that clearly states the research gap. I think this abstract would be better if it followed the classic Nature model from class.

input:

whole paragraph

text:

edit the following text:

output:

During chicken preparation, flavor enhancement and bacterial safety are crucial. Our study introduces an innovative approach that enhances flavor and reduces bacterial contamination in cooked chicken, providing the optimum combination of heating time and temperature. Traditional chicken preparation methods, including consuming it raw, have long faced flavor challenges and bacterial safety concerns. Despite innovations in slaughtering techniques and bird size, these issues persist, necessitating novel solutions.

This study addresses the need for a chicken preparation method that simultaneously improves flavor and reduces bacterial contamination, offering a safer and more palatable alternative to traditional approaches. We demonstrate that our novel method, which involves precise seasoning and heating, significantly enhances flavor and reduces bacterial contamination. Contrary to previous beliefs, our findings show that chicken flavor can be improved while ensuring bacterial safety through this innovative method. Additionally, our results contribute to the culinary field by establishing a standardized approach to chicken preparation.

The development of our novel chicken preparation method not only tackles longstanding challenges in cuisine but also has broader public health implications, offering a safer option for poultry consumption. Moreover, our approach highlights the importance of integrating culinary expertise with scientific knowledge to solve complex food-related issues.

scores:

1+0+0+0

problems:

1. GPT can only correct grammar mistakes to make the paragraph fluent. It can't fix logical errors.
2. GPT can only edit sentences one by one.

2

input:

whole paragraph

text:

edit the following abstract of a scientific article:

output:

During chicken preparation, flavor enhancement and bacterial safety are crucial considerations. Our study introduces an innovative approach aimed at enhancing flavor, reducing bacterial contamination, and

determining the optimal combination of heating time and temperature in cooked chicken. Traditional chicken preparation methods, including raw consumption, have long been associated with flavor challenges and bacterial safety concerns. Despite advancements in slaughtering techniques and changes in bird size, these issues persist, necessitating novel solutions.

This study addresses the need for a chicken preparation method that simultaneously improves flavor and reduces bacterial contamination, offering a safer and more palatable alternative to traditional approaches. Our novel chicken preparation method, which involves precise seasoning and heating, significantly enhances flavor and reduces bacterial contamination. Our findings reveal that contrary to previous beliefs, it is possible to improve chicken flavor while ensuring bacterial safety through our innovative method. Additionally, our research contributes to the advancement of culinary practices by establishing a standardized approach to chicken preparation.

The development of this novel chicken preparation method not only addresses longstanding challenges in cuisine but also has broader implications for public health by offering a safer option for poultry consumption. Moreover, our approach underscores the importance of integrating culinary expertise with scientific knowledge to solve complex food-related issues.

score 1+0+0+0

3

text:

edit the following abstract of a scientific article to make it sound like it was written by a really smart person

output:

Enhancing flavor and ensuring bacterial safety are critical components of chicken preparation. Our study introduces a pioneering method that optimizes flavor and minimizes bacterial contamination in cooked chicken by determining the ideal combination of heating time and temperature. Traditional methods of chicken preparation, including the risks associated with raw consumption, have historically faced significant flavor and safety challenges. Despite advancements such as improved slaughtering techniques and variations in bird size, these issues remain unresolved, highlighting the necessity for innovative solutions.

This research presents a novel chicken preparation technique that enhances flavor while significantly reducing bacterial contamination, providing a superior alternative to conventional methods. We demonstrate that our unique approach, which involves specific seasoning and heating protocols, effectively addresses both flavor enhancement and bacterial safety. Contrary to prior assumptions, our findings indicate that it is possible to improve the flavor of chicken while ensuring its safety through our innovative preparation method.

Furthermore, our study contributes to the culinary arts by establishing a standardized and scientifically validated approach to chicken preparation. The development of this novel method not only resolves persistent culinary challenges but also has significant implications for public health, offering a safer option for poultry consumption. Additionally, our approach highlights the critical role of integrating culinary expertise with scientific research to address complex food-related issues, underscoring the synergy between gastronomy and science in advancing the field.

score:1

problems:

too fancy

---

## 4(Our final product)

text:

I have written the following abstract for a scientific article. Can you provide some feedback about it? just point out the problems and don't fix them.

output:

Your abstract is comprehensive, but there are several areas where improvements could be made:

1. **Repetition:** The abstract repeats several points, such as flavor enhancement and bacterial safety, which could be consolidated to make the text more concise.
2. **Ambiguity:** Some phrases are vague or overly general, like "traditional chicken preparation methods" and "innovations like improvements in slaughtering techniques and bird size," which could be more specific.
3. **Logical Flow:** The logical progression of ideas is somewhat disjointed. For example, the transition from flavor enhancement to bacterial safety and then back to flavor can be more fluid.
4. **Redundancy:** Phrases like "novel chicken preparation method" and "innovative approach" are repeated multiple times, which can be streamlined.
5. **Clarity:** The statement "traditional chicken preparation methods, including raw consumption" is misleading because raw consumption isn't a traditional preparation method.
6. **Focus:** The abstract could focus more on the specific findings and implications of the study rather than repeating the general problem statement.
7. **Specificity:** The abstract mentions "optimum combination of heating time and temperature" without providing any specifics or indicating that these results are part of the study's findings.
8. **Grammar and Phrasing:** Some sentences are awkwardly phrased, such as "Despite innovations like improvements in slaughtering techniques and bird size, these issues persist," which can be clearer.
9. **Technical Details:** Lacking in specifics about the method and findings can leave readers unclear about the study's contribution.

Focusing on these areas can enhance the clarity, conciseness, and impact of your abstract.

text:

now please fix the 1st and 8th problem in the paragraph. give an edited one and tell me the differences.

output:

During chicken preparation, flavor enhancement and bacterial safety are crucial. Our study introduces an innovative approach aimed at enhancing flavor and reducing bacterial contamination in cooked chicken, providing the optimum combination of heating time and temperature. Traditional chicken preparation methods have long been associated with flavor challenges and bacterial safety concerns. Despite innovations in slaughtering techniques and bird size, these issues persist, necessitating novel solutions. This study addresses the need for a chicken preparation method that simultaneously improves flavor and reduces

bacterial contamination, offering a safer and more palatable alternative. Here we show that our novel chicken preparation method, involving seasoning and heating, significantly enhances flavor and reduces bacterial contamination. Our study reveals that contrary to previous beliefs, chicken flavor can be improved while ensuring bacterial safety through our innovative method. Additionally, our findings contribute to the advancement of cuisine by establishing a standardized approach to chicken preparation. The development of our novel method not only addresses longstanding challenges in cuisine but also has broader implications for public health, offering a safer option for poultry consumption. Moreover, our approach underscores the importance of integrating culinary expertise with scientific knowledge to solve complex food-related issues.

#### Differences:

1. Repetition: The revised abstract removes some repetitive elements, such as the repeated mention of "novel chicken preparation method" and "innovative approach," making the text more concise.
2. Grammar and Phrasing: The sentence "Despite innovations like improvements in slaughtering techniques and bird size, these issues persist," is changed to "Despite innovations in slaughtering techniques and bird size, these issues persist," for clarity and correctness. The phrase "including raw consumption" has been removed to correct the misleading statement.

score:1+1+0+0

5

text:

fix this paragraph according to these rules:

**this is the fixed paragraph in the last talk**

During chicken preparation, flavor enhancement and bacterial safety are crucial. Our study introduces an innovative approach aimed at enhancing flavor and reducing bacterial contamination in cooked chicken, providing the optimum combination of heating time and temperature. Traditional chicken preparation methods have long been associated with flavor challenges and bacterial safety concerns. Despite innovations in slaughtering techniques and bird size, these issues persist, necessitating novel solutions. This study addresses the need for a chicken preparation method that simultaneously improves flavor and reduces bacterial contamination, offering a safer and more palatable alternative. Here we show that our novel chicken preparation method, involving seasoning and heating, significantly enhances flavor and reduces bacterial contamination. Our study reveals that contrary to previous beliefs, chicken flavor can be improved while ensuring bacterial safety through our innovative method. Additionally, our findings contribute to the advancement of cuisine by establishing a standardized approach to chicken preparation. The development of our novel method not only addresses longstanding challenges in cuisine but also has broader implications for public health, offering a safer option for poultry consumption. Moreover, our approach underscores the importance of integrating culinary expertise with scientific knowledge to solve complex food-related issues.

- One or two sentences providing a basic introduction to the field, comprehensible to a scientist in any discipline.
- Two to three sentences of more detailed background, comprehensible to scientists in related disciplines.
- One sentence clearly stating the general problem being addressed by this particular study.
- One sentence summarizing the main result (with the words "here we show" or their equivalent).

- Two or three sentences explaining what the main result reveals in direct comparison to what was thought to be the case previously, or how the main result adds to previous knowledge.
- One or two sentences to put the results into a more general context.
- Two or three sentences to provide a broader perspective, readily comprehensible to a scientist in any discipline, may be included in the first paragraph if the editor considers that the accessibility of the paper is significantly enhanced by their inclusion.

output:

In the realm of poultry preparation, optimizing both flavor and bacterial safety is paramount. Our research introduces an innovative method to achieve this balance, determining the ideal combination of heating time and temperature to enhance flavor while minimizing bacterial contamination in cooked chicken. Despite advancements in poultry processing techniques, flavor retention and bacterial safety remain persistent challenges, necessitating fresh approaches. Our study tackles this by presenting a novel chicken preparation technique that simultaneously improves flavor and reduces bacterial risk, offering a safer and more appealing alternative for consumers. Here we demonstrate that our method, integrating seasoning and heating, significantly elevates flavor profiles while effectively lowering bacterial contamination levels. Contrary to prior assumptions, our findings challenge the notion that enhancing chicken flavor compromises bacterial safety, showcasing the potential for culinary innovation to address longstanding concerns. The development of our approach not only addresses immediate culinary hurdles but also holds implications for broader public health, presenting a safer avenue for poultry consumption by integrating scientific insights with culinary expertise.

score:  $1+1+0+0=2$

text:

fix the repetition parts (+original paragraph)

output:

During chicken preparation, enhancing flavor and ensuring bacterial safety play crucial roles. Our study introduces an innovative method aimed at improving flavor and reducing bacterial contamination in cooked chicken, providing the optimal combination of heating time and temperature. Traditional methods, including raw consumption, have long been associated with flavor challenges and safety concerns. Despite innovations like better slaughtering techniques and larger bird sizes, these issues persist, necessitating new solutions. This study addresses the need for a method that simultaneously improves flavor and reduces bacterial contamination, offering a safer and more palatable alternative to traditional approaches. We demonstrate that our novel preparation method, involving specific seasoning and heating techniques, significantly enhances flavor and reduces bacterial contamination. Contrary to previous beliefs, our findings show that chicken flavor can be improved while ensuring safety. Additionally, our research advances the culinary field by establishing a standardized approach to chicken preparation. This development not only addresses longstanding culinary challenges but also has broader implications for public health, providing a safer option for poultry consumption. Moreover, our approach highlights the importance of integrating culinary expertise with scientific knowledge to solve complex food-related issues.

---

Did the AI program help you improve the Chicken midterm abstract?

The answer is **YES!!!** AI program can successfully most of the problems of the original version of abstract and fix some of them. **Note** that ChatGPT **cannot** create new information. The most effective way is to ask it to modify the existed paragraphs according to our requirments.

## Some best practices for how to improve scientific abstracts

- First ask ChatGPT:

I have written the following abstract for a scientific article. Can you provide some feedback about it? just point out the problems and don't fix them.

- Then, ask:

now please fix the xth (1st, 2nd, 3rd, etc.) problem in the paragraph. give an edited one and tell me the differences.

And we can get a satisfying modified version of out text.