

Section 3

Start Writing

Now that your team lead has given you clearance, it's time to write your article. Have the planning worksheet you completed in [Section 1](#) available for reference.

- ✓ **Write your abstract.**
- ✓ **Write the introduction.**
- ✓ **Get feedback on your abstract and introduction before writing other sections.**
- ✓ **Write the methods and results sections.**
- ✓ **Write the discussion section.**
- ✓ **Think of a direct and concise title for your article.**
- ✓ **Write your reference section.**

✓ Write your abstract.

An abstract highlights key information from your article. Journal editors will read your abstract first to decide if they're interested in considering the rest of your work. Writing a draft of your abstract now will help you plan out your article. Of course, you'll need to revise it later once you've finished writing. At that point, go back to make sure that your abstract only contains information that you've discussed in the text.

Paragraph 1: Purpose (3 to 5 sentences)

Referencing the introduction of your article, state the main purpose of your study.

Example: Previous research found that restaurant workers do not wash their hands or use gloves as often as they should. This study is the first to observe handwashing and glove use practices in restaurants directly. We wanted to find out what variables might affect how often workers wash their hands or use gloves.

Paragraph 2: Methods (3 to 5 sentences)

Referencing the methods section of your article, summarize the methods of your study.

Example: We collected data in restaurants chosen at random. We conducted interviews about food safety training. We also observed workers to gather information about handwashing practices.

Paragraph 3: Results (3 to 5 sentences)

Referencing the results section of your article, summarize the results of your study.

Example: We found that certain factors — such as working in a busy restaurant and having only one hand sink — contributed to lower rates of handwashing. Wearing gloves also contributed to lower rates of handwashing. Restaurants that had visible hand sinks and that gave staff food safety training were more likely to have workers who washed their hands often.

Paragraph 4: Conclusions (3 to 5 sentences)

Referencing the discussion section of your article, summarize the conclusions of your study.

Example: Updating food preparation practices would increase the odds that workers will wash their hands more regularly. Employees were most likely to wash their hands or use gloves before preparing food. Having an easily accessible sink was related to higher rates of handwashing. This suggests that having an easily accessible sink promotes handwashing. Similarly, having easily accessible gloves is connected to a higher rate of glove use.

This 4-paragraph format for writing your abstract is a good general approach. But be sure to follow your journal's specific guidelines when structuring your abstract.

✓ Write the introduction.

Your introduction will be about 4 short paragraphs. Use your planning worksheet from **Section 1** as the framework for your article.

Paragraph 1: Address the current gap(s) in literature (3 to 5 sentences)

Provide background on previous research and its limitations. Use the findings from your literature review to identify the gaps.

Example: The FDA recommends handwashing and using barriers (like gloves) to stop the spread of germs to food. But research shows that restaurant workers do not wash their hands or use barriers as often as they should. To improve food safety, we need to know more about what factors affect a restaurant's food handling practices.

Paragraph 2: State the purpose of your article (4 to 6 sentences)

Use the sentences from your worksheet about the purpose of your article. Be sure to emphasize what is new and useful about your work.

Paragraphs 3 and 4: Explain how your article fills the current gap(s) (3 to 5 sentences each)

Show how your article addresses the limitations of previous studies in a new, compelling way. You may want to include information about your methods or the results of your study.

Example: In our review of the research, we found no studies that directly surveyed employee handwashing practices in restaurants. To address this gap, we interviewed and watched food workers to collect data. This study is the first to look at how restaurant traits such as the number of meals served relate to food workers' handwashing and glove use.

✓ **Get feedback on your abstract and introduction before writing other sections.**

Ask a colleague or your team lead to review your abstract and introduction. Seeking feedback early will ensure you're on the right track.

To get the most useful feedback, ask specific questions like:

- Do my abstract and introduction clearly state the purpose of my study?
- Is it obvious how my study fills a current gap in literature?
- Are paragraphs short and do they explain only one idea per paragraph?

Once you receive feedback, remember to review it carefully and reread your abstract and introduction with the suggestions in mind. Integrate feedback and use it to guide your writing in other sections of your article.

Consider how feedback can strengthen your writing. Pay attention to specific words or sentences that confused readers and reword them.

✓ Write methods and results sections.

Once you have incorporated feedback in your introduction, write the rest of your article.

Describe your research methods in 3 to 4 paragraphs (3 to 5 sentences each).

Paragraph 1: Clearly define your steps

Explain how you collected, organized, and analyzed data. Write your steps in chronological order.

Limit your paragraphs to clear explanations of what you did. You will write about what you found (your results) later.

Example: We collected data in 321 restaurants chosen at random. State or local environmental health specialists collected the data. In each restaurant, we watched a food worker for about an hour and collected data on his or her handwashing and glove use. We also interviewed a manager or worker in each restaurant about traits linked to hand hygiene behavior, such as worker food safety training.

Paragraphs 2 to 4: Explain complex information and define all research variables

Explain original methods in detail. Focus on how you did your work, not what you found.

Example: We recorded variables that could affect proper hand washing such as:

- Whether the restaurant is busy
- If there is more than one hand sink
- If a hand sink is visible to workers
- If workers complete food-safety training

Describe your results in 3 to 4 paragraphs (3 to 5 sentences each) and use figures or charts to support your content.

Paragraph 1: Describe the results of your analysis

Limit your paragraphs to clear explanations of what you **found**.

Example: We found several factors that affect proper handwashing and glove use.

Handwashing was more likely to occur:

- Before food preparation than with other work activities
- When workers were not busy
- In restaurants where workers had food-safety training
- In restaurants with more than one hand sink
- In restaurants with a hand sink in view of the observed worker

Glove use was more likely to occur:

- During food preparation than during other work activities
- When workers were not busy
- In chain restaurants
- In restaurants with glove supplies in areas where workers prepare food

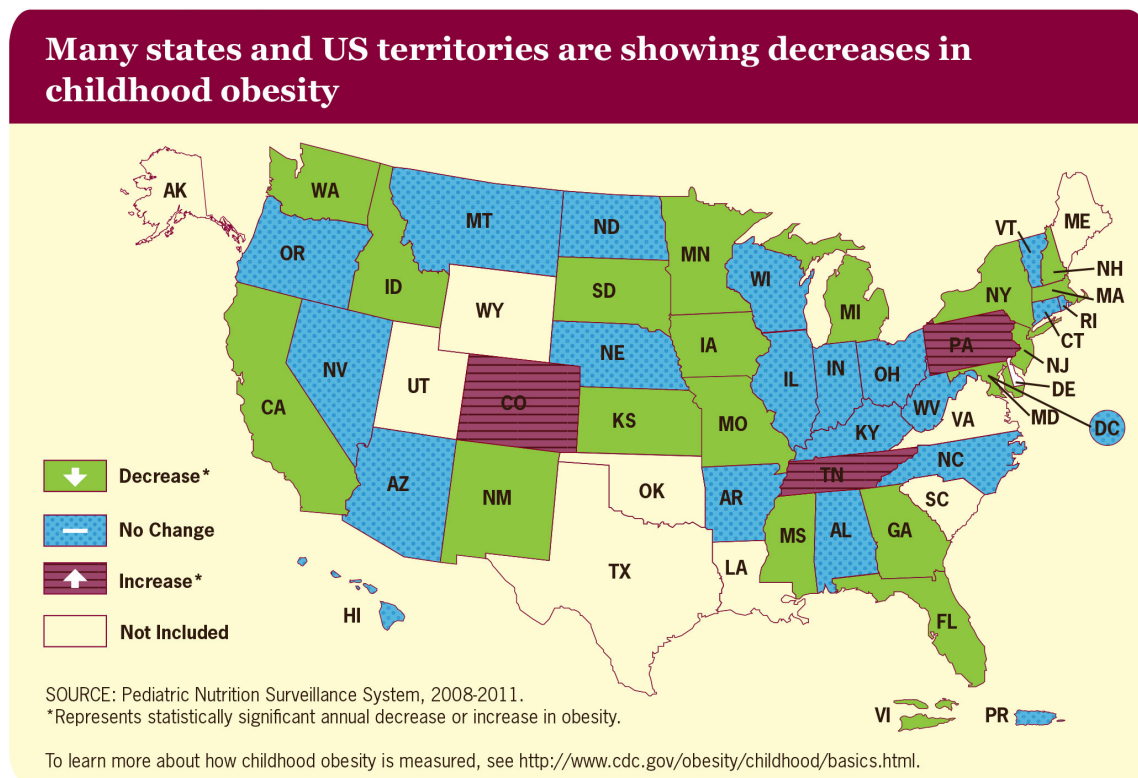
Paragraphs 2 to 4: Explain tables, charts, or figures

When explaining tables, charts, or figures keep sentences:

- Short
- Clear
- Descriptive

A reader needs to be able to understand what the table, chart, or figure shows based on the caption alone. Ask this question: What do you want the reader to walk away knowing? The answer is your caption.

Example:



✓ Write the discussion section.

Your discussion section is where you can state conclusions and address any limitations. Summarize your article and state conclusions in about 4 paragraphs (3 to 5 sentences each).

Paragraph 1: Restate your main result and explain your conclusion

Include information that supports your conclusion.

Example: Handwashing and glove use rates were highest before food preparation. This suggests that at least some workers may know that food needs to be protected from dirty hands. When sinks are nearby and clearly in view, workers seem more likely to wash their hands frequently. Workers also seem to be more likely to use gloves if they are easy to access.

Paragraph 2: Compare your study with existing, related studies

Highlight the strengths of your study, and emphasize what is **new and useful** about it.

Example: Our Food Worker Handwashing Practices study is the first to collect data through observation. Previous studies have relied on self-reported statistics about handwashing and glove use. They haven't been able to define variables affecting proper handwashing and glove use.

Paragraph 3: State any limits of or caveats about your study

Present limits factually and without apology.

Example: This study wasn't able to examine handwashing and glove use practices in different types of restaurants. We did not distinguish between fast food, family restaurants, or fine dining.

Paragraph 4: Make recommendations for next steps

Recommendations may include changes in policies or suggestions for future research.

Example: Restaurant managers and food safety programs should change food-preparation practices to lower the number of times workers need to wash their hands. For example, restaurants could change the process of making sandwiches to reduce the number of times a worker has to handle raw meat. Lowering the number of times workers have to wash their hands could make them more likely to comply. In future studies, researchers should examine other factors that affect hand hygiene and the link between glove use and handwashing.

✓ Think of a direct and concise title for your article.

Write a clear, engaging title that will entice readers. When titling your article, include your research topic, and 1 or 2 key pieces about your work, like:

- Methods
- Results
- Conclusions
- Study name

Example: Food Worker Handwashing Practices: An Observational Study.

Note: This title includes the topic and methods.

✓ Write your reference section.

Your reference section is an essential part of your article. A good reference section will help your readers better understand the context of your work. They'll see how your article builds on and adds to previous research.

To create an accurate, professional reference section:

- Make sure you use the correct format for your references. It may vary from journal to journal.
- Consider reference software that will make it easier to keep your references consistent.
- Proofread your references carefully. It's easy to miss typos and mistakes.
- Keep a detailed list of your references as you write. You'll save time at the end.

✓ Section 3 Recap

Here's a review of how to structure each section of your article, from abstract to references. Refer back to it as you write.

Abstract

Highlight key information from your article. Journal editors will read your abstract first to determine if they're interested in your full article.

Paragraph 1: Purpose (3 to 5 sentences)

Paragraph 2: Methods (2 to 5 sentences)

Paragraph 3: Results (3 to 5 sentences)

Paragraph 4: Conclusions (3 to 5 sentences)

Introduction

Use your planning worksheet from Section 1 as the framework for your introduction.

Paragraph 1: Address the current gap(s) in literature (3 to 5 sentences)

Paragraph 2: State the purpose of your article (4 to 6 sentences)

Paragraphs 3 and 4: Explain how your article fills the current gap(s) (3 to 5 sentences each)

Methods

Describe your research methods in 3 to 4 paragraphs (3 to 5 sentences each).

Paragraph 1: Clearly define your steps

Paragraphs 2 to 4: Explain complex information and define all research variables

Results

Describe your results in 3 to 4 paragraphs (3 to 5 sentences each) and use figures or charts to support your content.

Paragraph 1: Describe the results of your analysis

Paragraphs 2 to 4: Explain tables, charts, or figures

Discussion

Summarize your article and state conclusions in about 4 paragraphs (3 to 5 sentences each).

Paragraph 1: Restate your main result and explain your conclusion

Paragraph 2: Compare your study with existing, related studies

Paragraph 3: State any limits of or caveats about your study

Paragraph 4: Make recommendations for next steps

Title

Include your research topic and 1 or 2 key pieces about your work, like methods, results, conclusions, or study name.

References

Your reference section will help your reader understand the context of your work. Use the right format for your journal and proofread carefully for mistakes.

Next Steps

Now that you've finished your article, it's time to see what other readers think. Learn how to respond to feedback in the next section.