

# Comprehension of Comparisons Between Viruses and Bacteria

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## Abstract

The purpose of the project was to revise a health document on viruses and bacteria for University of Dayton Intensive English Program (IEP) students. The team's goal was to lower the reading level of a health document produced by "Science with Mrs. Barton" in order to make it more accessible to low-literacy students.

## Methods of Revision

We changed the format of the original document to bullet points with clear headings and made an obvious distinction between the virus and bacteria sections. We eliminated a section that listed common types of viruses/bacteria by their scientific names because this proved to be the most problematic section for comprehension.

## Methods

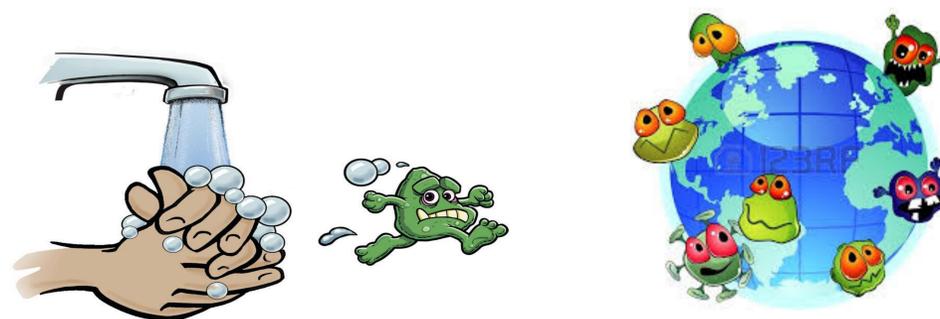
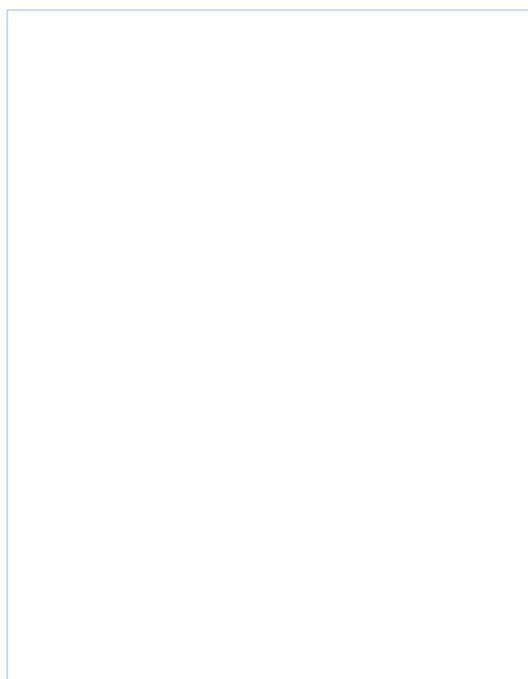
We conducted a SMOG test, Flesch-Kincaid test and a health literacy load analysis on the original document. Both the SMOG and Flesch-Kincaid tests are reading level tests. The health literacy analyzed the four domains of literacy: fundamental, scientific, civic, and cultural. We found that the "Science with Mrs. Barton" document had an 11th grade Reading level, for higher than the IEP students could comprehend.

## Conclusion

We visited twice with the IEP students to assess knowledge and field test the documents we created. We made this text more effective for our new audience by altering the format to make more sense to them. We were able to simplify many terms/words and eliminate unnecessary information in order to help the IEP students comprehend the information easier. It was fascinating to see how little the IEP students were able to tell us about bacteria and viruses, and the different outlook that their respective countries have on healthcare. Overall, we are very grateful for the opportunity to experience health literacy first hand, as well as work with the IEP students to better their understanding of common healthcare practices in the United States.

## Original Document: 11th grade

### Reading Level:



## Final Document: 4th grade Reading Level:

