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### **Masking Away Our Emotions**

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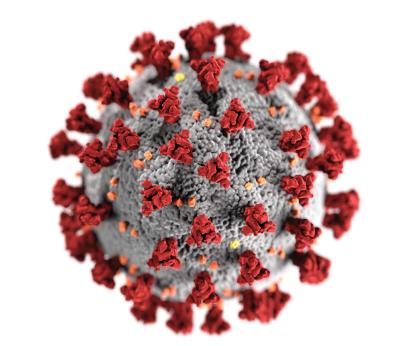
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White, Marshall and Hiatt, Kyle, "Masking Away Our Emotions" (2021). Fall Showcase for Research and Creative Inquiry. 156.

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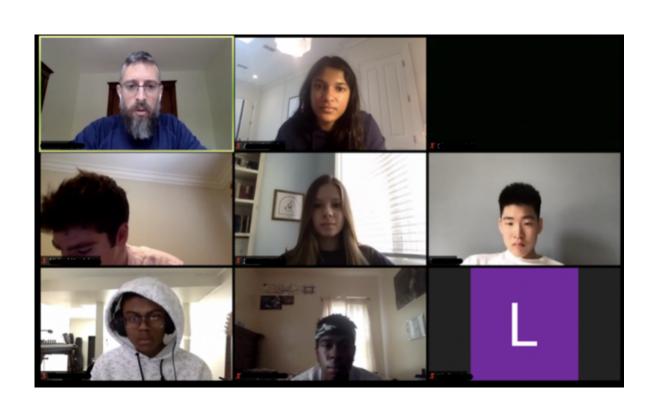
# Masking Away Our Emotions?

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## Introduction

- In 2019, SARS-CoV-2 virus surfaced in Wuhan, China resulting in a worldwide pandemic. This virus is spread when an infected person breathes out water droplets six feet or closer. This knowledge resulted in mandates requiring individuals to wear a mask in a social environments to try and limit the chance for the virus to be transmitted.
- Public school systems in the USA and around the world decided that in-person class was a risk. Zoom was used is a video communication service that allows for classes to be held online. The professor and students join an online room resulting in a virtual classroom experience. This process allowed for the reduce spread of the virus although impacted the ability for the students to succeed due the environment offered.
- Lastly speechreading was greatly impacted due the mandate on masks. Many different people all over the world use visual lipreading as means to socialize. Masks made it difficult to visually interpret words from lips and greatly impacted people's ability to communicate among one another.





## Research Question

To determine implications that face masks have on nonverbal communication, and their effect on an individual's ability to perceive emotions based on facial expressions.

## Methods

Identified main emotions with non-verbal communication

Acquired pictures of masked and unmasked emotions

Constructed a survey containing both unmasked and masked facial expressions/emotions

Obtained survey inputs

Analyzed, quantified, and graphed survey inputs

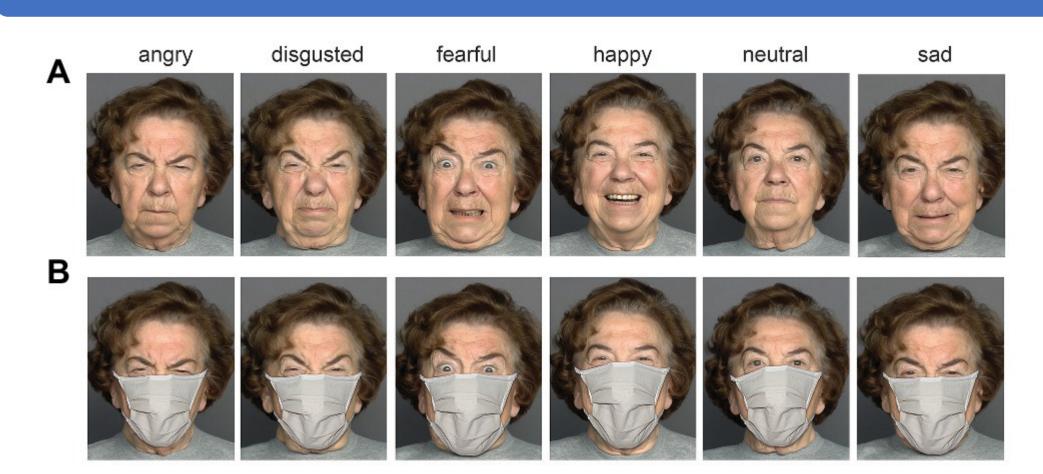
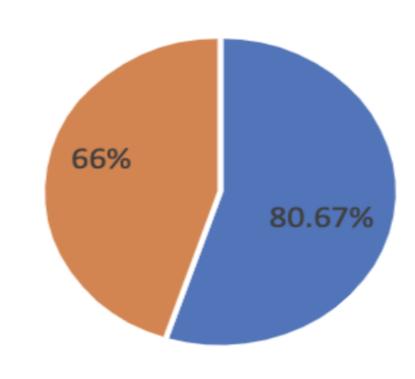


Figure 1. Displays the figures used in the survey to determine how face masks interfere on emotional recognition

## Results

Average % correctness for identifying unmasked versus masked emotions



- % overall correctness (unmasked emotions)
- % overall correctness (masked emotions)

Figure 2: Comparison of the average percent correctness of participants' ability to identify unmasked versus masked emotion.

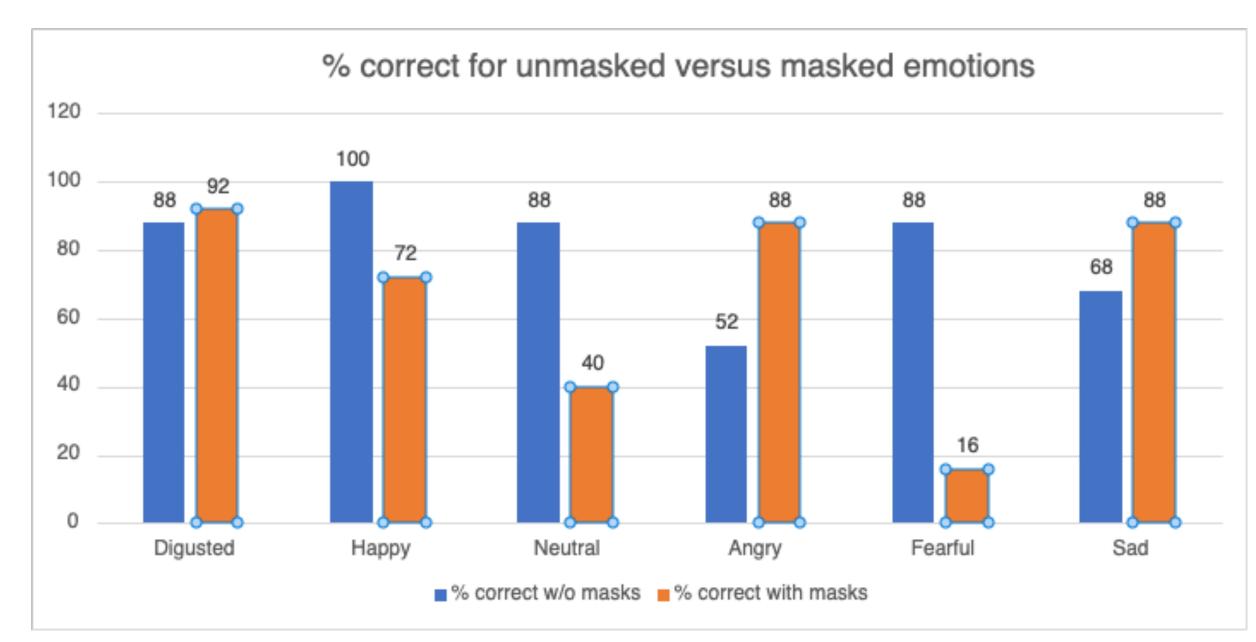


Figure 3: Comparison of the percent correctness for each individual emotion for both unmasked versus face masked emotions.

### Conclusions

- Average percent correctness for participants' perception of unmasked emotions was greater when compared to masked emotions
- Only one instance were participants 100% successful: recognizing the unmasked happy emotion
- Most successful instances of masked perception included disgusted, angry, and sad
- Reasons why perception of masked emotions were more unsuccessful is due the the limited exposure of masks in society, prohibited view full facial muscles, and lastly the development of normalizing social distancing.
- When observing the facial muscles of the skull you can determine that the limited number of facial muscles above the nose prohibits the ability to read emotion with the use of mask

Figure 4: Facial muscles of human skull

## References

Cartaud, A., Quesque, F., & Coello, Y. (2020). Wearing a face mask against Covid-19 results in a reduction of social distancing. Plos one, 15(12).