

Instructional Design: Analysis

The Effects of COVID-19 on Friends and Family

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ETEC 5440: Design and Development of Instructional Material

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Abstract

In 2019 March, a worldwide crisis imperialized states and countries and caused chaos within three months. Mass media outlets, journalists, and state officials were unclear about what family and friends should take appropriate responses. Although repeated misinformation was constantly provided, many of our family members and friends were impacted by Covid-19. “According to the CDC, the highest infection rate was amongst older adults.” According to a survey taken of family and friends, the highest rates were amongst young and middle-aged adults who were 20-29 years old. According to Boehmer and DeVies, this age group accounted for 20% of all confirmed cases. (Boehmer & DeVies, 2020). According to our survey, some participants experienced anxiety and stress; 8 out of 19 surveyees who answered the survey reported this. While most participants have been vaccinated, some were not. All people need to get vaccinated. Information is essential in convincing people to get vaccinated. Our most important goal is to give as much information as possible to friends and family.

Keywords: Covid-19, CDC, Hematology

LITERATURE REVIEW

While data continues to change, we have made it our goal to get as many people vaccinated as possible and to provide information about Covid-19 which is consistent with the CDC and Whitehouse guidelines. This will allow people to make a reasonable decision about their protection and their decision to be vaccinated. The government is asking for everyone to become vaccinated. There is an abundance of information about the virus on the White House website. The President also stated, “It starts with understanding this: Even as the Delta variant 19 has COVID-19 has been hitting this country hard, we have the tools to combat the virus, if we can come together as a country and use those tools.” (whitehouse.gov). Variants of the virus Covid-19 are becoming a problem and more people are becoming infected with new variants. Some of the variants currently have no cure. Therefore, we must make getting vaccinations a priority. The information obtained from the Whitehouse.gov website is essential information that can aid those who have contracted the virus and those who are taking preventative measures and precautions not to expose themselves to the virus. In reviewing the CDC website, we were able to obtain up-to-date information on Covid-19. According to the CDC website, there are guidelines that we can follow to provide awareness to the public. Awareness measures that should be followed are knowing how the virus spreads, and its symptoms, preventing actions, and measures that will prepare everyone to be more educated about the topic of COVID-19. The CDC also provides posters with visuals that contain important information about awareness and prevention, washing your hands, social distancing, testing sites, and types of vaccines. The CDC also provided worldwide data tracking information which includes death rates, vaccination effectiveness, demographic trends, health care studies, pediatric data, and forecasting of decrease

and increase of Covid cases across the United States. The literature obtained from the CDC website

Based on our survey and interview results, we think there's a need to continue to provide awareness to the community on Covid-19 and ways to cope with anxiety. We believe people need to be informed and reminded of vaccines and the types of tests available. Because COVID-19 is a systemic infection, according to Boehmer, et al. his findings indicated that "Lymphopenia.... Neutrophil/lymphocyte ratio and peak platelet/lymphocyte ratio may also have prognostic value in determining severe cases." (Boehmer, et al.) Based on his findings he was also able to determine cases in which patients would have a dismal prognosis. Having this information would enable doctors to prescribe early treatment at early onset to improve outcomes. Analysis of the blood of COVID-19 patients and determining that certain levels of increase or decrease in hematology could be associated with the disease. In addition, they were able to determine which cases would worsen. PT and PTT prolongation could show changes in fibrin which could lead to severe thrombocytopenia which is life-threatening. He also emphasized the need for the necessity of blood donations which could be used for COVID patients. In patients with Thrombocytopenia, they experience low platelet levels and the donations of blood could provide the platelets needed for Covid patients to aid in their recovery. As we have witnessed in the past year, variants are becoming more deadly. Dr. Peter G Gibson et al write about COVID-19 ARDS "This disease is still too strange to us, and there are too many doubts." There is no cure for this variant currently. This variant is also not being diagnosed and treated correctly. If anyone has symptoms similar to Covid-19 in addition to other symptoms. It is recommended additional tests be performed on patients. According to Terpos, et al., his findings were similar to Boehmer, et al. Terpos also found that Covid-19 is "a systemic infection

with a significant impact on the hematopoietic system and hemostasis.” (Terpos, et al.)

According to Terpos, he indicated that laboratory findings could identify ratios and peaks of Neutrophils, Lymphocytes, and platelets, and identifying these hematological changes had a prognostic value and their analysis could be used to determine which cases were most severe. Hematology findings were able to be used to determine cases that would have a dismal prognosis, and this would also enable them to prescribe medical intervention that would” improve outcomes.” Like Boehmer, they were able to determine that fibrin degradation increased in patients with thrombocytopenia which were severe and life-threatening. Both Boehmer, et al. and Terpos, et al. determined that there were also issues with intravascular coagulation. This literature is relevant to providing awareness of the importance of hospitalization procedures needed by patients. In addition, Terpos, et al. also emphasized the need for blood donations needed for Covid-19 patients.

NEEDS ANALYSIS

19 individuals responded to the COVID-19 effects survey. The survey included family, friends, and classmates from ETEC 5440. The 19 individuals responded regarding impacts and effects of Covid-19. In the survey the highest responses were in knowledge and awareness; 100% of the surveyed responded that they had knowledge and awareness of Covid-19. In the category of known exposures and symptoms, 100% of the surveyed responded positively. In the category of vaccinations, 84% of the surveyed stated they were vaccinated. The age of the surveyed ranged from 4 were 15-25 years of age; 2 were 26-35 years of age; 6 were 36-45 years of age; 6 were 46-55 years of age and 1 was in range of 56-65 years of age. According to Boehmer and DeVies, “Nationwide, the median age of COVID-19 cases declined from 46

years in May to 37 years in July and 38 in August” (Boehmer & DeVies, 2020). Out of the 19 surveyees, there were 9 family members or someone close to loved ones who passed away due to COVID-19. There is still a need for 16% of the Surveyed to get vaccinated. According to the survey results, 2 of 19 (10%) refused to be vaccinated. 4 of 19 (35%) received the Moderna Vaccine and 13 of 19 (65%) received the Pfizer vaccine.

LEARNER ANALYSIS

During this Covid-19 crisis, we need to be very careful with whom and what we interact with. The world around us has changed. Social distancing is a norm for now. Covid-19 has changed the way we interact with the world around us. Surveys sent to family and friends were sent to inquire about this virus. At the end of the survey we evaluated the responses taken by participants and their responses were evaluated, and transformed into pie charts. These charts represent the people and their responses. When asked if they knew about Covid-19, all participants answered yes. This question gives us a positive understanding of the survey group. It is reasonable to say that participants would want to learn more about this subject. Therefore, our main goal of this project is to create a website that educates our friends and families with content that is user-friendly and provides valuable information about COVID-19.

The ages of the survey group were diverse and ranged from the ages of 15-67. Knowledge was a key component of the survey. When asked about the survey, a participant said, “The survey was easy and the questions were not too personal”. This was a perfect response to the survey, not too personal or discouraging. Most showed prior knowledge. They may have gained knowledge from news media, social communication, government agencies, or

interactions with family members. According to J. Piaget “showing prior knowledge of a subject is known to be Constructivism. (Piaget, 1977)”

In the survey, we also noticed that the surveyees from the ages of 15-45 had more or better knowledge of COVID-19. This group has similar patterns since at least 50% of them responded they are feeling anxious due to Covid-19. We also interviewed some participants that were diagnosed with Covid-19. During the interview, participants were asked open-ended questions: “I think Covid-19 is...”, Covid can be prevented by...”, “I think I got Covid through...”, “After being infected with the virus I feel...”, “I would like to learn more about...”. We learned that 100% of interviewed participants who contracted the virus at family gatherings are going through stress and anxiety due to COVID-19. 2 participants were interviewed and received the vaccine after contracting the virus.

Participants 1 and 2 were both Spanish speakers. The participant information has been translated as indicated below.

Participant 1: She indicated that she had awareness of procedures to avoid the COVID-19 virus. Nevertheless, she was infected and spent three weeks in the hospital. During her hospitalization, she witnessed 5 patients who shared her room who died of COVID-19. She also shared that she is going through anxiety and learning how to cope with the diverse effects she is now exposed to due to having COVID-19, including guilt because of the death of her younger sister who died two weeks after her hospitalization. Her sister was 43 years old and died as a result of contracting the Covid-19 virus. Six months after her hospitalization she is still affected by the virus in many ways and hopes more people will get vaccinated.

Participant 2: This participant contracted the virus at a family reunion. He did not follow guidelines and procedures because he assumed everyone was clear and free from the virus. Some of the family members who attended this reunion wore masks but most of the family assumed that because they were family, they were all safe. Due to political affiliation, some family members did not wear masks and came to the reunion knowing they had already been exposed to the virus which caused Participant 1, her younger sisters, and 10 other people who attended the reunion to contract the Covid-19 virus. Participant 2 was not hospitalized and recuperated within three weeks with no residual symptoms.

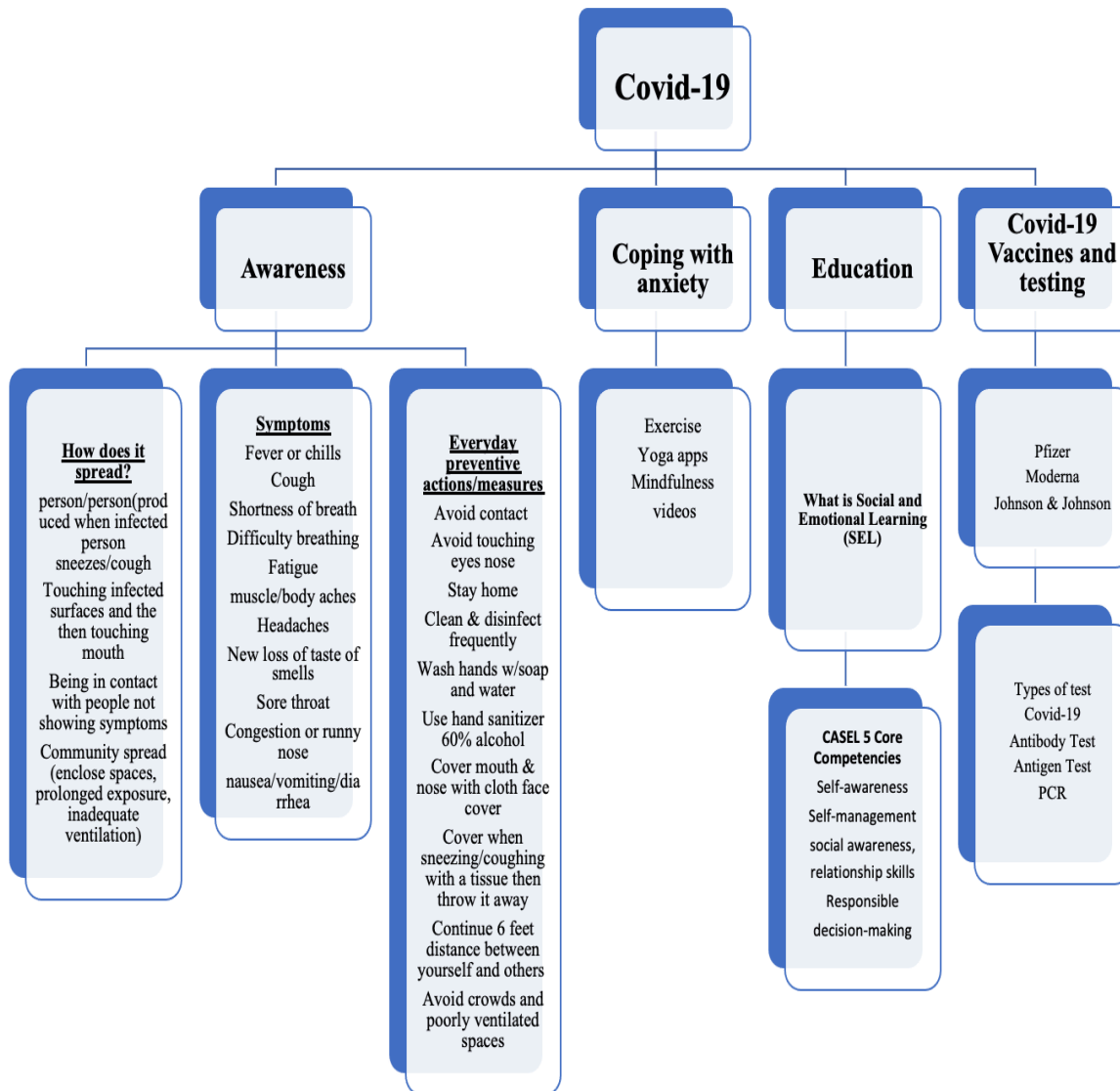
INSTRUCTIONAL ANALYSIS

Performance Objectives are to Educate Family and Friends.

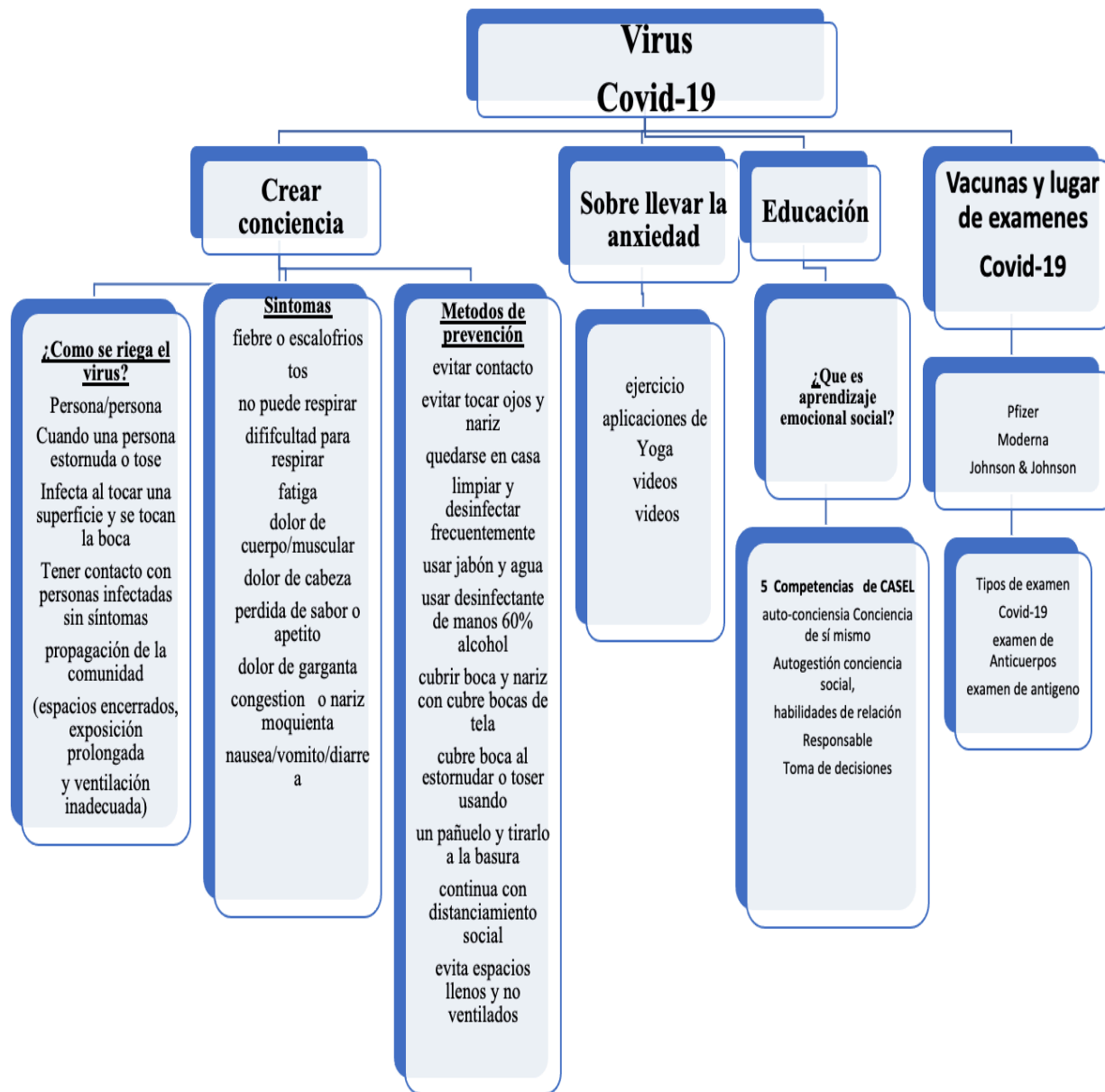
1. The section on Awareness includes information on how the virus spreads from person to person; when an infected person sneezes/coughs, by touching infected surfaces and then touching your mouth. It is also contracted by contact with other people that do show symptoms. It is spread through the community when people gather in enclosed spaces, through prolonged exposure and inadequate ventilation.
2. This section includes information on Symptoms associated with Covid-19:
 - Fever or chills
 - Cough
 - Shortness of breath
 - Difficulty breathing
 - Fatigue
 - Muscle/body aches
 - Headaches
 - Loss of taste or smells
 - Sore throat
 - Congestion or runny nose

- Nausea/vomiting/diarrhea
3. This section includes information about preventive actions and measures:
 - Avoid touching eyes nose
 - Stay home
 - Clean & disinfect frequently
 - Wash hands w/soap and water
 - Use hand sanitizer with 60% alcohol
 - Cover mouth & nose with a cloth face cover
 - Cover when sneezing/coughing with a tissue then throw it away
 - Continue 6 feet distance between yourself and others
 - Avoid crowds and poorly ventilated spaces
 4. Coping with anxiety/Exercise
 - Yoga apps
 - Mindfulness
 - Videos
 5. Education-What is Social and Emotional Learning (SEL) and the five Core Competencies
 - Self-awareness
 - Self-management
 - social awareness,
 - relationship skills
 - Responsible
 - Decision-making
 6. Covid-19 Vaccines and available testing:
 - Pfizer
 - Moderna
 - Johnson & Johnson
 - Covid-19
 - Antibody Test
 - Antigen Test
 - PCR

Flow Chart English Version



Flow Chart Spanish Version



Summary

While challenging times are upon us. We as people, must come together to meet and exceed the challenges faced. One such challenge is Covid-19. In the past year, we have witnessed millions of people die because of this terrible virus. Scientists from around the world came together to find a vaccine. Some people are still skeptical about this vaccine. They are afraid of symptoms generated by the vaccine. Despite scientific medical evidence, misconception continues to fog the mental state of those who refuse to believe that COVID-19 exists. While the coronavirus continues to take lives. As part of our goal, we have given people as much information as possible about Covid-19. In the future, we will work on creating a website that will offer more information.

References

- Boehmer, T. K., Devies, J., Caruso, E., Santen, K. L., Tang, S., Black, C. L., . . . Gundlapalli, A. V. (2020). Changing Age Distribution of the COVID-19 Pandemic — United States, May–August 2020. *MMWR. Morbidity and Mortality Weekly Report*, 69(39), 1404-1409. doi:10.15585/mmwr.mm6939e1
- CDCStreamingHealth. (2020, August 07). Symptoms of Coronavirus Disease 2019. Retrieved October 1, 2021, from <https://www.youtube.com/watch?v=F70BzSFAZfw>
- Centers for Disease Control and Prevention. (n.d.). Retrieved September 30, 2021, from <https://www.cdc.gov/>
- Common Human Coronaviruses. (2020, February 13). Retrieved September 30, 2021, from <https://www.cdc.gov/coronavirus/general-information.html>
- Gibson, P. G., Qin, L., & Puah, S. H. (2020). COVID-19 acute respiratory distress syndrome (ARDS): Clinical features and differences from typical pre-COVID-19 ARDS. *Medical Journal of Australia*, 213(2), 54. doi:10.5694/mja2.50674
- Mask Up It's Required-Poster. (n.d.). Retrieved October 1, 2021, from https://www.cdc.gov/coronavirus/2019-ncov/travelers/pdf/B_POSTER_PublicTransMask_s_letter-p.pdf
- C. (n.d.). Protect Yourself and Others from Covid-19. Retrieved October 1, 2021, from https://www.cdc.gov/coronavirus/2019-ncov/downloads/Young_Mitigation_recommendations.pdf

ions_and_resources_toolkit_01.pdf

C. (n.d.). Stop the Spread of Germs Covid-19-Poster. Retrieved October 1, 2021, from

https://www.cdc.gov/coronavirus/2019-ncov/images/print-materials/Stop_the_spread_vaccinated_v2.pdf

Terpos, E., Ntanasis-Stathopoulos, I., Elalamy, I., Kastiritis, E., Sergentanis, T. N., Politou, M., . . .

Dimopoulos, M. A. (2020). Hematological findings and complications of COVID-19.

American Journal of Hematology, 95(7), 834-847. doi:10.1002/ajh.25829

Travel. (n.d.). Retrieved September 30, 2021, from

<https://www.cdc.gov/coronavirus/2019-ncov/travelers>

English survey

https://docs.google.com/forms/d/e/1FAIpQLScZPzWymyrIFQ6y7DZfjcyiVQCH01x4Q96oeUIYTUEsz5qD3Q/viewform?usp=sf_link

Spanish Survey

https://docs.google.com/forms/d/e/1FAIpQLSd8Ztw1iQqm_w39OzUXMgP2YSIF0SjisvX_vgLldQ10VxNMA/viewform?usp=sf_link

Participant personal communication (September 25, 2021)

Interviews-participant A age 44, participant B age 39 personal communication (September 19, 2021)