

GUESS: GESNOX Utilization to Empower School Sanitation: An Innovation to aid the Health and Safety of Teachers and Students in the New Normal Set-up



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ABSTRACT

Disinfectants are essential preventive agents against the coronavirus disease even in the new normal set-up. Also, there is a lot of attention given on the importance of proper sanitation in the workplace especially for teachers and students who will be experiencing a face-to-face class even in a pandemic set-up. Due to the need for disinfectants, people are looking for alternatives to ensure their own safety from the harmful effects of COVID-19. This study is done to provide an alternative disinfectant spray called GESNOX from Ganado Elementary School in Biñan, Laguna in aiding the students and teachers in providing better protection from virus particles trapped into the surfaces of the school. Hence, this paper also shows the number of teachers of Ganado Elementary School that have given their referral in the usage of GESNOX for surface sanitation to improve safety in school.

Keywords: disinfectants, disease, pandemic, particles, surfaces, virus

INTRODUCTION

According to Bailey, During the 2020 pandemic outbreak of what we call as Severe Acute Respiratory Syndrome Coronavirus 2 or commonly known as COVID 19, contaminated surfaces were seen as a potential source for the dissemination of the COVID virus particles. Moreover, the said viruses were known to survive for hours to days on different surfaces. With the fact that the virus stays for hours to days on different kinds of surfaces, environmental cleaning was therefore recommended which until now has become a practice to ensure sanitation and safety.

This research study aims to produce a personalized disinfectant spray that can be used on school surfaces to ensure surface cleanliness and sanitation especially now that our country is planning to implement a hundred percent face-to-face teaching interaction in schools. The need to ensure the health and safety of every teacher and student has become very vital. Also, this research paper will discuss the acceptability level of Ganado Elementary School in Binan in the usage of GESNOX in aiding the students and teachers in providing better protection from virus particles trapped into the surfaces of the school. Moreover, this paper will also show the number of teachers of Ganado Elementary School included in the survey that have given their referral in the usage of GESNOX for surface sanitation to improve safety in school

METHODOLOGY

This action research aims to produce a disinfectant spray that can eliminate a large percentage of viruses on surfaces. The solution is named GESNOX inheriting the name of the school which created it. The solution will be produced by

mixing a liquid form of NOX or commonly known as sodium hypochlorite into a 1 gallon of water mixed with aromatic fragrant oil in order to diminish the mild sour smell of NOX. After producing the solution, a survey will be given to ten teachers of Ganado Elementary School to determine the acceptability level of Ganado Elementary School. Once the acceptability percentage is determined through the result from the survey, the disinfectant spray will either be referred to or not by the ten participants of the research as surface disinfectant in Ganado Elementary School.

RESULTS

| PARTICIPANT | QUESTION1 | | | QUESTION2 | | | QUESTION3 | | | QUESTION4 | | | QUESTION5 | | |
|-------------|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|
| | NA | A | HA | NA | A | HA | NA | A | HA | NA | A | HA | NA | A | HA |
| 1 | | | √ | | | √ | | | √ | | | √ | | | √ |
| 2 | | | √ | | | √ | | | √ | | | √ | | | √ |
| 3 | | | √ | | | √ | | | √ | | | √ | | | √ |
| 4 | | | √ | | | √ | | | √ | | | √ | | | √ |
| 5 | | √ | | | √ | | | √ | | | √ | | | √ | |
| 6 | | | √ | | | √ | | | √ | | | √ | | | √ |
| 7 | | √ | | | √ | | | √ | | | √ | | | √ | |
| 8 | | | √ | | | √ | | | √ | | | √ | | | √ |
| 9 | | √ | | | √ | | | √ | | | √ | | | √ | |
| 10 | | | √ | | | √ | | | √ | | | √ | | | √ |
| TOTAL | 0 | 3 | 7 | 0 | 5 | 5 | 0 | 5 | 5 | 0 | 5 | 5 | 0 | 1 | 9 |
| PERCENTAGE | 0% | 30% | 70% | 0% | 50% | 50% | 0% | 50% | 50% | 0% | 50% | 50% | 0% | 10% | 90% |

(Legend: NA- Not Acceptable, A- Acceptable, HA- Highly Acceptable)

Table 1. Summary of response of participants in the survey conducted by the researchers

| | |
|--------------------|------|
| CHOICE PERCENTAGE: | |
| NOT ACCEPTABLE | 0% |
| ACCEPTABLE | 38% |
| HIGHLY ACCEPTABLE | 62% |
| TOTAL PERCENTAGE | 100% |

Table 2. Computed percentage of the response given by the participants of the Survey

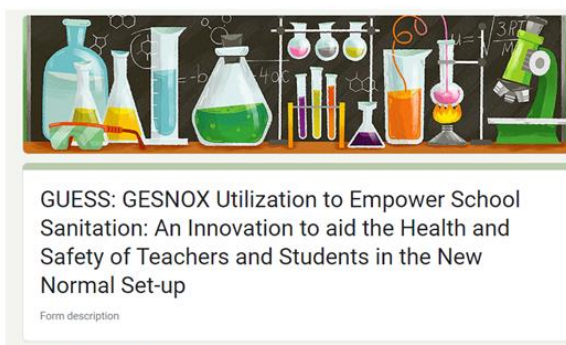


Figure 1. GESNOX Survey for 10 participants

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|---|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| File Edit View Insert Format Data Tools Extensions Help | | | | | |
| A1 90% 123 Default (Ar...) 10 B 1234567890 | | | | | |
| 1 | POSITION | 1. GESNOX can be used | 2. Usage of GESNOX do | 3. Usage of GESNOX do | 4. Usage of GESNOX do |
| 2 | Teacher I | Highly Acceptable | Highly Acceptable | Highly Acceptable | Highly Acceptable |
| 3 | Teacher I | Highly Acceptable | Highly Acceptable | Highly Acceptable | Highly Acceptable |
| 4 | Teacher I | Highly Acceptable | Highly Acceptable | Highly Acceptable | Highly Acceptable |
| 5 | Teacher I | Highly Acceptable | Acceptable | Highly Acceptable | Acceptable |
| 6 | Teacher I | Acceptable | Acceptable | Acceptable | Highly Acceptable |

Figure 2. Sample Random Selecting of respondent answer in the survey

Upon finishing the survey, all participants having a total number of 10 approved that the solution GESNOX can be used as disinfectant spray, does not cause irritation on nose and skin, does not possess health hazard and is recommendable to be used by other teachers. Due to high acceptability level and the number of participants that agreed that the solution GESNOX does not cause harm and irritation to the end user and it can be used as disinfectant spray, we can say that the personally made solution proposed by the researchers provides health and safety for both the teacher and students, and also other people who will enter the premises of Ganado Elementary School.

Also, the said solution is highly recommended by the participants. Lastly, most of the comments given by the participants are to put the solution in a better sprayer and have a different scent since the solution shows big potential as being a marketable item which can be used as substitute for the ready-made disinfectant sprays in malls or pharmaceutical boutiques.

DISCUSSION

The research is entirely about constructing or producing an uncommon disinfectant spray which specifically uses sodium hypochlorite. The main objective of the research is to determine the acceptability level of the participants in order to know if the said disinfectant spray is recommendable to be used by Ganado Elementary School or not. In order to determine the acceptability level, the researchers conducted a survey that will question if the said solution can be used as disinfectant spray, does not cause irritation of the nose or the skin, if it does not possess health hazard to the end user and if it acceptable and recommendable to be used by other teachers. The result of

the survey resulted in having a good acceptability rate without having an unacceptable response. Due to the results obtained, we can say that the usage of GESNOX is recommended to be used in Ganado Elementary school since the solution can be used as disinfectant spray, does not cause irritation and does not possess health hazard and recommended to be used by other end users. In totality, the solution GESNOX provides health and safety for the teachers and students. Lastly, the only comment of the participants of this research is to have more scent for the said solution in order for others to appreciate more like the normal disinfectant sprays with different scent.

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