

Characterization of the Use of Google Classroom in the 2020 COVID-19 Year, by the Students of System Engineering of the TECNM Campus, Instituto Tecnológico de Mexicali

Dr. Jesus Francisco Gutierrez Ocampo¹, M.C. Corina Araceli Ortiz Perez²
M.C. Jose Antonio Camaño Quevedo³

^{1,2,3}TECNM, Campus Instituto Tecnológico de Mexicali, Mexicali, Mexico,
Corresponding author email: gutierrezocampo@itmexicali.edu.mx

ABSTRACT: During this year 2020, the COVID-19 pandemic has prompted people to look for online communication tools such as Google Classroom. The objective of this quantitative research is to measure the impact on users of the computer systems engineering career of the Instituto Tecnológico de Mexicali with 395 enrolled students and make a diagnosis, based on the results of a survey applied to 65 students.

KEYWORDS: TECNM, COVID-19, Google, Classroom, Systems Engineering

Introduction

At the Tecnológico Nacional de Mexico, Campus Instituto Tecnológico de Mexicali, since the beginning of the COVID-19 pandemic, strategies were implemented to continue with the teaching of online classes that search was exhaustive with the objective of designing a strategy that was efficient for students to learn during this difficult time. One of the various platforms studied was Google Classroom, which is the root of why this research was carried out.

Methodology

The first step that we followed when writing this investigation, was to explain the research design and the conception of the research idea after the research problem. Later, we defined the research objectives, formulation of research questions. In addition and following the methodology, we explain the type of methodology to follow according to the proposed objectives. Then we will focus on the specific description of our study population, indicating the main factors by which it has been delimited, also including the statistical formula used to determine the sample.

Once entering the survey, we will show the main variables that we have included in the research and the measures used to convert them into operations.

On the other hand, we dedicate a section to the analysis of the measurement scales, so that we characterize the different dimensions of competitiveness according to the model used, based on a factor analysis, as well as verify the reliability and validity of the previous ones. The scale of measurement with which we obtained the information will be used to finish the review of the hypotheses and analyze the results obtained to finally write the conclusion.

$$n = 71 \quad N = 395 \quad Z\alpha = 1.96 \quad p = .16$$

$$n = \frac{395 (3.8416) (0.5) (0.5)}{(40395-1)(0.0025)+(3.8416)(0.16)(0.16)} = 65$$

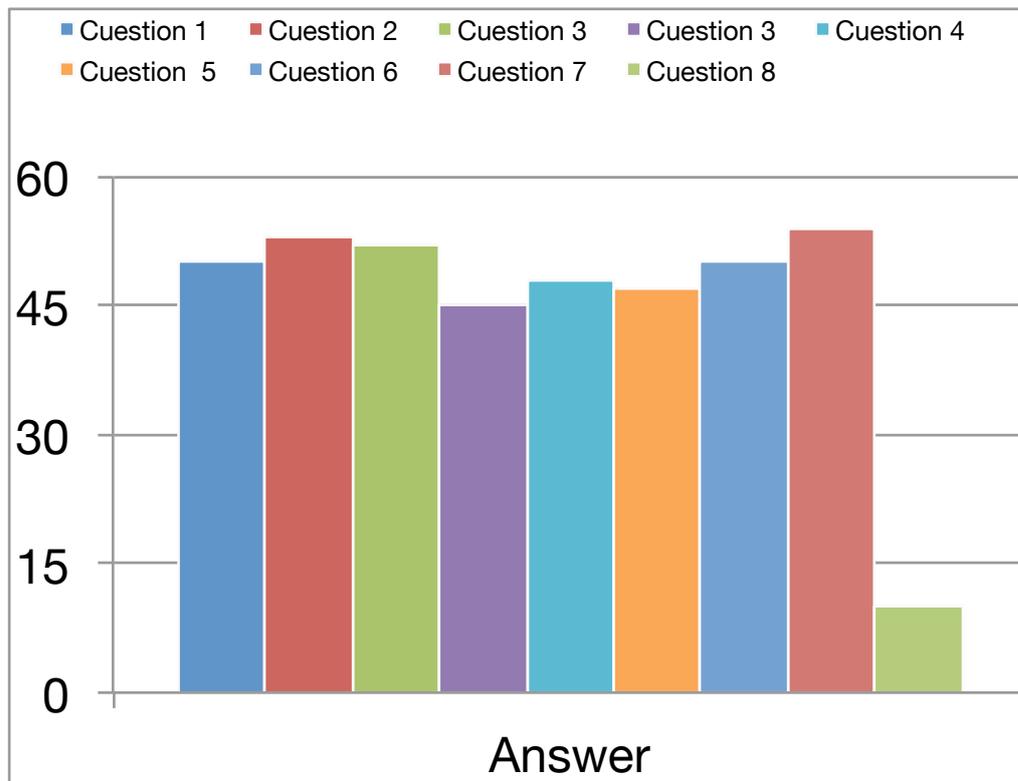
Survey

1. During this year's 2020 COVID-19 pandemic, the Google Classroom platform is used in the subjects of the Computer Systems Engineering career at the Instituto Tecnológico de Mexicali, or is known by students.
2. During this year's 2020 COVID-19 pandemic, the Google Classroom platform that is used in the subjects of the Computer Systems Engineering career at the Instituto Tecnológico de Mexicali is used regularly in classes.
3. During this year's 2020 COVID-19 pandemic, the Google Classroom platform that is used in the subjects of the career of Computer Systems Engineering at the Instituto Tecnológico de Mexicali will be recommended to other students.
4. During this year's 2020 COVID-19 pandemic, the Classroom platform that is used in the subjects of the career of Computer Systems Engineering at the Instituto Tecnológico de Mexicali, considers them necessary for better learning.
5. During this year's 2020 COVID-19 pandemic, the Classroom platform that is used in the subjects of the Computer Systems Engineering career at the Instituto Tecnológico de Mexicali, Apart from the use in class you have seen them being used in some other career.
6. During this year's 2020 COVID-19 pandemic, the Google Classroom platform that is used in the subjects of the Computer Systems Engineering career at the Instituto Tecnológico de Mexicali, In the last 12 months you have used them.
7. During this year's 2020 COVID-19 pandemic, the Google Classroom platform that is used in the subjects of the career of Computer Systems Engineering at the Instituto Tecnológico de Mexicali, If you had the opportunity to use this technology you would use it.
8. During this year's 2020 COVID-19 pandemic the Google Classroom platform that is used in the subjects of the career of Computer Systems Engineering at the Instituto Tecnológico de Mexicali, considers them reliable for use in the classroom

With the following multiple-choice answers:

- Strongly Disagree
- Disagree
- I slightly disagree
- A little agreement
- Agree
- Totally agree

Tabel 1: Results



Conclusion

The Google Classroom platform, if it is known by the students, besides being considered useful, and if it is used regularly in classes, and students recommend it to other students, and consider them necessary for a good learning, it was detected that not all the students use the Google Classroom. Based on the answers obtained, more than 70% of the students surveyed use it, 95% of the students surveyed want to use it, 70% of the students consider it a reliable tool, and more than 95% of students are considered technology enthusiasts.

Acknowledgment

An earlier version of this paper was published in the Conference Proceedings of the 13th International Conference on Social Sciences, on October 6-7, 2017. EUSER: Vienna.