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Hacia la libertad por la cultura

TOPIC:

"Advantages and disadvantages that teachers face while teaching through Google Classroom Platform at Centro Escolar República de Nicaragua in Quezaltepeque, La Libertad, year 2020"

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ABSTRACT

The advantages and disadvantages that teachers have while switching from face to face classes to Google Classroom Platform is an important issue to study because it is necessary to explore how teachers could deal with this change. Researchers decided to investigate this topic because during the year 2020, all the schools and universities turned to online classes due to Covid-19 Pandemic, which affected all around the world. Schools were closed to keep students and teachers away from this contagious virus. Teachers from Centro Escolar República de Nicaragua were chosen to be the sample since all of them use the Google Classroom Platform to get in contact with students and continue their study program. To reach the objectives in this research, the type of research was the mixed method since both, quantitative and qualitative approaches were used through an online survey where they filled out a questionnaire that described their performance in their classes. Participants were able to help with this research. After exploring their performance, conditions, and structure for their online classes; researchers concluded that teachers had the necessary skills to implement the use of LMS, even though it implied opportunities and obstacles to overcome because they lacked knowledge at the beginning and financial support as well. Notwithstanding, they learned the use of Google Classroom highly well.

Key words: Pandemic covid-19, LMS, Google Classroom Platform, Face to face classes, Online class.

INTRODUCTION

This research work, called: Advantages and disadvantages that teachers face while teaching through Google Classroom platform at Centro Escolar República de Nicaragua at Quezaltepeque, La Libertad, year 2020. Aims to describe the work that teachers are doing in this public institution as English teachers developing their work using virtual tools with special attention through Google Classroom platform.

First chapter: Statement of the problem. A brief description of the pros and cons will be presented to provide to the audience an idea about the topic in question; research questions, which guide the researchers to find the necessary answers to provide a solution to the problem; objectives, which show what the researchers want to achieve at the end of this research; justification, which describes the importance of doing this study.

Second chapter: Theoretical framework. Which is divided in topics, subtopics and theory that allow the subject to be approached in a more coherent and organized way.

Third chapter: Methodology. It sets out the methodological framework for research. This chapter presents the type of approach used to achieve the purpose of the research work. It also describes the type of study that will help to answer the research questions, and the theory of social constructivism of Lev Vygotsky, since it will allow researchers to know the personal experience of the participants. In addition, it includes the population that the research group will consider to develop the research, the techniques and instrument that will be used to collect the information, and the way the instrument will be analyzed to present the results at the end of the study.

STATEMENT OF THE PROBLEM

For many years, virtual platforms have offered the necessary technological supports that contribute to learning environments. These emerged about thirty years ago in the nineties, facilitating and innovating elements of the teaching-learning process in the educational area, specifically in educational institutions. *"These platforms integrate tools and resources to manage, distribute and control content and online training activities through the Internet". (Zhang and Wang article, 2005)*

Working online for educational institutions has become a useful strategy for teachers now looking for a new way of life in the teaching process. The technological advances are reasons why thousands of teachers are joining in digital platforms to teach or teach classes, including Google classroom as a main platform. Besides, teachers are joining into web sites which have become an essential tool to work in many areas of teaching-learning. So, it is necessary to highlight that the digital transformation of educational institutions is an unquestionable reality today which makes us to consider that it is important to investigate how this virtual phenomenon is taking place, as well as its advantages and disadvantages. According to (Valverde 2018), the digital transformation of educational institutions *"It's about establishing new relationships with digital."* To describe this digital transformation in schools, it is necessary to take into account the advantages and disadvantages for teachers that take place on Google classroom platform during the teaching process.

The changes generated by the incorporation of the digitalization into schools in the teaching process have increased the necessity to modify the traditional teaching models, leading teachers towards a dual format in *"which face-to-face with online modalities coexist, making a digital room*

called mixed formula or blended learning" (blended teaching) (Valverde 2018). This new reality invites us to make a reflection on what these changes require of the teachers and as well as students with the use of these digital tools. *"Among the challenges faced by educators who implement an online learning experience based on their study plans, are the availability and willingness of the actors towards this mode of learning in terms of: a) the provision of appropriate materials and content; b) cultural acceptance of online learning; c) financial possibilities; d) commitment in time, discipline and interest;*

e) the support of the institutions and their administration; f) appropriate support staff; and, g) the necessary technological infrastructure" (Abas, Kaur and Harun, 2004.) And all of these aspects make the researchers to focus with special attention on the topic: Advantages and disadvantages that teachers face while teaching through Google Classroom platform at Centro Escolar República de Nicaragua in Quezaltepeque, La Libertad, year 2020.

JUSTIFICATION

The purpose of this study was to gather the perceptions and experiences from teachers at Centro Escolar República de Nicaragua, in the academic year 2020, about the use of Google Classroom as their main learning management system (LMS) to continue developing the teaching-learning process. The use of Google Classroom was adopted as a substitution to the customary (face to face) teaching and learning process that was stopped due to the COVID-19 pandemic during the year above mentioned. Besides, the researchers wanted to explore the advantages and disadvantages teachers have faced while working with different teaching strategies and how they dealt with difficult situations in this process.

Since the researchers were certain that the main LMS used by the teachers of this institution was Google Classroom, they believed it is important to gather information regarding the teachers' experiences in using this technological tool as providing and using an innovative way to continue with their classes, in spite of the COVID-19 Pandemic. It was important to gather these opinions since teachers at this institution would benefit from this experience in applying and improving what has worked for them and to change what has not been effective, in case, this Pandemic would continue affecting the education field in El Salvador.

Researchers wanted to explore which have been the teaching techniques teachers have implemented to create an adequate environment between themselves and their respective groups of classes to have the best outcome. Researchers also wanted to find out if teachers at this public school have continued with their teaching-learning process to carry on their planned lessons during the year 2020.

It was evident that nobody was prepared to face all the problems that the COVID-19 pandemic brought, and El Salvador's public schools were not the exception. The researchers assume that it was a huge challenge for teachers of the public schools to use the technological tools to continue educating the future professionals. There was no doubt that these teachers had to make a great number of changes in their pedagogical model. They had to plan their online classes, designed and adequate materials, prepared a different evaluation system and the like. Considering these and other issues that concern the teaching and learning process, the researchers aim special attention on the topic: "Advantages and disadvantages that teachers face while teaching though Google Classroom Platform at Centro Escolar República de Nicaragua in Quezaltepeque, La Libertad, year 2020"

OBJECTIVES

General Objective:

- To explore the opportunities and obstacles that teachers faced while carrying out the instructional process through the Google Classroom platform at Centro Escolar República de Nicaragua, in Quezaltepeque, La Libertad, year 2020.

Specific objectives:

- To describe the opportunities that teachers faced while carrying out the instructional process through the Google Classroom platform at Centro Escolar República de Nicaragua, in Quezaltepeque, La Libertad, year 2020.

- To identify the obstacles that teachers faced while carrying out the instructional process through the Google Classroom platform at Centro Escolar República de Nicaragua, in Quezaltepeque, La Libertad, year 2020

To determine whether teachers have had the appropriate technological support and the necessary technological infrastructure to deal with the current online teaching process at Centro Escolar República de Nicaragua in Quezaltepeque, La Libertad, year 2020.

RESEARCH QUESTIONS

General Question:

1) Which are the opportunities and obstacles that teachers face while carrying out the instructional process through the Google Classroom platform at Centro Escolar República de Nicaragua, in Quezaltepeque, La Libertad, year 2020?

Specific questions:

1) Which are the opportunities that teachers faced while carrying out the instructional process through the Google Classroom platform at Centro Escolar República de Nicaragua, in Quezaltepeque, La Libertad, year 2020?

2) Which are the obstacles that teachers faced while carrying out the instructional process through the Google Classroom platform at Centro Escolar República de Nicaragua, in Quezaltepeque, La Libertad, year 2020?

3) Have teachers received the appropriate technological support and the necessary technological infrastructure to deal with the current online teaching process at Centro Escolar República de Nicaragua in Quezaltepeque, La Libertad, year 2020?

THEORETICAL FRAMEWORK

BACKGROUND

<u>LEARNING MANAGEMENT SYSTEM`S MEANING:</u>

A Learning Management System (LMS), is a software that is designed specifically to create, distribute, and manage the delivery of educational content. The LMS can be hosted as a stand-alone product on the company server, or it can be a cloud-based platform that is hosted by the software firm. Also, it is a software application for the administration, documentation, tracking, reporting, automation and delivery of educational courses, training programs, or learning and development programs. The learning management system concept emerged directly from e-Learning. (Valamis, Digital Transformation of the Workforce, May 2018)

LMS software was developed first by Sidney L. Pressey in the 1920s, the teaching machine offered various kinds of practical exercises and multiple-choice questions (MCQs) similar to a typewriter, the teaching machine required learners to drill in answers instead of typing them out, which would be recorded at the back of the machine. The learner could only advance if their response to the previous question was correct, a feature that modern LMSs still use. (Athmika, 2020)

In 2000, the world was introduced to the first open-source LMS: Moodle, short for Modular Object-Oriented Dynamic Learning Environment. With Moodle, learners could start learning as soon as they downloaded the application onto their desktop computers. Personalized learning was made possible by letting learners pick the content they wished to store or export. Moodle's plug-and-play functionality meant that training content could be delivered to the learner/s faster and at a lower price.

Learning management systems began with the implementation of distance education. Countries such as Australia, with a geographically isolated population, adopted this kind of opportunities to allow the access to education for students who could not attend to formal places of learning.

Over the last years, Google has taken its popular applications and outfitted them for the classroom. While many schools and districts of California, USA, continued with the use existing learning management systems, such as Blackboard, Canvas, Moodle and Schoology, Google's Classroom platform had increasingly captivated teachers' eyes. Many schools already used Google's suite of productivity tools such as: Docs, Sheets and Slides. What Classroom aimed to provide was a way to package these apps together and add unique features to what teachers and students needed. In short words, Classroom wanted to be a lightweight learning management system. (Siu, 2016)

Google Classroom was launched in August 2014 and advertised itself as the one-stop-shop to save teachers time so they can focus on teaching. By October 2015, Google estimated some 10 million students and teachers were using it. According to Google, in the same year another 50 million students and teachers around the world were using Google applications, from Gmail to Chrome. Along the way, the company has added features for teachers to manage several classes and invite collaborators, as well as adding the API (Application Programming Interface) for administrators and developers to integrate Classroom with outside applications.

In August 2016, Google added a guardian summary feature for parents to receive updates on their student's work, missing assignments or classroom announcements. Now comments, grading, assigning and working all exist on the free platform built on top of Google Drive. Teachers also wanted to plan ahead for classes, and in Classroom they could draft and schedule posts in advance.

Since Google Classroom became an LMS that integrated Google Apps for Education, it tied in Google Docs, Google Slides and other Google apps along with other Grading tools (exclusive to Google classroom only), and they all together gave the following benefits:

Substitution:

- Use Google Docs to write a report (instead of writing with pencil and paper).

- Google sheets to prove the concept of shared workspace and live updating.

- Use Google Calendar for due dates, events outside the classroom, and other important "chronological data."

Augmentation:

- Track when students turn-in work.

- Highlight student exemplars: An announcement in Google Classroom can attach student exemplars from the assignment folder in Google Drive.

Modification:

- Create a self-grading assessment using Google Forms. Students could use the results to create new learning goals.

- Create classroom groups based on readiness, interest, reading level, or other factors for teaching and learning.

- Google Docs to share documents and work collaboratively on writing projects.

- Google Draw to draw collaboratively.

Redefinition:

- Invite a Googler into the class to do a guest lecture through Video Chat on the importance science. Or invite a grandparent who lives in another state to read to the class during story time.

For Teachers

To use Google Classroom meant being able to work on the same lesson plan at the same time with a colleague using Google Docs. It also allowed them to store lesson plans in school's shared Google Drive so that anyone at school could find and access them. They were also able to create a folder for each level to share resources.

For Students

Math

- Model mathematics with Google Drawing: Collaboratively create virtual manipulatives, such as Algebra Tiles, in a Google Drawing. Distribute Google Drawings for students to build on.
- Collaborative reasoning: Prior to providing students the algorithm for solving a problem, students can use a collaborative Google Document or Slides presentation to reason out possible solutions to a problem. Attach a document in Google Classroom as "Students can edit file."
- Provide peer tutoring: Students in upper grades can tutor and support students in lower grades through the creation of a Google Classroom class for this purpose.

Science

- Create a Discussion on Specific Topic: In Google Classroom, there is a stream that appears by default when you login to your class. This stream can be utilized to collect student opinions by creating discussion topics and new posts.

- Weather/environment lab. Science classes can connect with one or more classes in another city, state, province or country and gather data about the weather or environment around them. Log it in a Google Spreadsheet with a page for each location. Compare and contrast the world around you.

Reading

- Weekly reading record: The students in the school usually have a reading diary that they use to record information about times that they read during the week. They take it home as well as using it at school. A form can be created (See example: Google Form) by the children as a place to enter data about their reading. Teachers may hear "I haven't got my reading diary," so many times during the year, this way they have no excuses and can access it from any computer. Alternatively, a class form could also be setup to gather together everyone's record.

Writing

- Student collaboration on writing projects: Google Classroom doesn't only support using e-portfolios, but with the power of Google Docs, the students can also work together in new ways on Google Docs.

- Spelling Tests: For a weekly spelling test use simple 1-10 or 1-20 numbered Google Form (See example: numbered form) with a name question and ask the children to type in their answers as you read out the list of words. Once these are submitted apply formula to judge if they are correct or not and it becomes self-marking.

Other

- E-Portfolio: As the platform is based on Google Drive for uploading documents and assignments, it can also serve as a digital portfolio for students. Both teachers and students can create folders and documents that can be shared between each other. If the students work in groups, they can create their own shared folder. This way the group's' work will be available to all the members of the group, even if one or more are absent. As everything happens in the cloud, everything can be done asynchronous.

- Response to Intervention: Different Google Classrooms can be created for students to join based on student needs. Students needing additional support or students needing additional challenges can join a Google Classroom class around intervention of a particular topic.

THEORETICAL BASIS

At the end of the year 2019, a virus was discovered in China, it was named "COVID-19" pandemic, also known as the coronavirus pandemic. Covid-19 is an ongoing pandemic of coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It was first identified in December 2019 in Wuhan, China. The World Health Organization declared the outbreak a Public Health Emergency of International Concern in January 2020 and a pandemic in March 2020. As of 20 January 2021, more than 96.3 million cases have been confirmed, with more than 2.06 million deaths attributed to COVID-19, across 190 countries worldwide. (World Health Organization, January 2020).

SYMPTOMS OF THE COVID-19

There are some symptoms of COVID-19 which are highly variable, ranging from none to severe illness. The virus spreads mainly through the air when people are near each other. It leaves an infected person as they breathe, cough, sneeze, or speak and enters another person via their mouth, nose, or eyes. It may also spread via contaminated surfaces. People remain infectious for up to two weeks, and can spread the virus even if they do not show symptoms.

PREVENTIVE RECOMMENDATIONS

There are measures for this virus including social distancing, wearing face masks in public, ventilation and air-filtering, hand washing, covering one's mouth when sneezing or coughing, disinfecting surfaces, and monitoring and self-isolation for people exposed or symptomatic. Several vaccines are being developed and distributed. Current treatments focus on addressing symptoms while work is underway to develop therapeutic drugs that inhibit the virus. Authorities

worldwide have responded by implementing travel restrictions, lockdowns, workplace hazard controls, and facility closures. Many places have also worked to increase testing capacity and trace contacts of the infected.

THE PANDEMIC AND ITS IMPACT IN THE EDUCATION SYSTEM

The pandemic has severely impacted educational systems globally. Most governments have temporarily closed educational institutions, with many switching to online education. As of 30 September 2020, approximately 1.077 billion learners are currently affected due to school closures in response to the pandemic (UNICEF, September 2020). An average of 53 countries is currently implementing nationwide closures and 27 are implementing local closures, impacting about 61.6 percent of the world's student population.

School closures impact not only students, teachers, and families but have far-reaching economic and societal consequences. School closures in response to the pandemic have shed light on various social and economic issues, including student debt, digital learning, food insecurity, and homelessness, as well as access to childcare, health care, housing, internet, and disability services. *"Every school needs a really good continuity of learning plan,"* says Tom Vander Ark, cofounder of Learn Capital and CEO of GettingSmart but the impact has been more severe for disadvantaged children and their families, causing interrupted learning, compromised nutrition, childcare problems, and consequent economic cost to families who cannot work.

The COVID-19 pandemic has affected educational systems worldwide, leading to the near-total closures of schools, universities and colleges around the world. Most governments decided to temporarily close educational institutions in an attempt to reduce the spread of COVID-19.

In El Salvador, public and private schools, universities and most offices closed at the beginning of March, 2020. Students were switched to online classes; teachers were trained as soon as possible in different platforms to continue the educational plan, people were in quarantine for about three months and schools were completely closed, which made students and parents work from home all the activities related to different subjects involved.

MINEDUCYT (Ministerio de Educación, Ciencia y Tecnología) in El Salvador, stopped the face-to face classes and enabled a platform for teachers and students to work on. This platform is known a Google Classroom. This is a cloud-based learning management system that is a part of Google Apps for Education. Google Classroom enable students to access the platform from computers, tablets and smartphones. Users can create Google Docs to manage assignments, port YouTube videos and attach files from Google Drive. It was not very well known for most of the teachers, but they were trained in using this platform to help student to continue their process. *"Teachers should have access to training on specific digital tools"*, says Michele Eaton, 2019, author of The Perfect Blend, a book focused on blended learning. Even though, this new system of online education brought some difficulties for both teachers and students due to the lack of technology some of them have continued working on the teaching –learning process as much as possible using all the available resources they have during the Pandemic Covid-19. There are many ways of working virtual classes to continue the education guidelines, innovation is the most important aspect to take into account and in this way Google classroom is an essential tool for teachers and students.

LMS (Learning Management System)

This way of education has been used before, but at this point of an emergency with the COVID-19 Pandemic, it was extremely necessary to switch on, as a result most teachers, public and private institutions tried to find the best way to continue with their planned lessons during the year 2020.

E-LEARNING

It is a learning system based on formalized teaching but with the help of electronic resources is known as E-learning. While teaching can be based in or out of the classrooms, the use of computers and the Internet forms the major component of E-learning

THE PURPOSE OF A LEARNING MANAGEMENT SYSTEM:

The main objective of Learning Management Systems is to enhance the learning process. A Learning Management System not only delivers content, but also handles registering courses, course administration, skill gap analysis, tracking, and reporting.

USE OF A LEARNING MANAGEMENT SYSTEM:

There are more creative ways to use a learning management system

1. Invite students to take a more active role in the teaching and learning process.
2. Successfully manage differentiated course material.
3. Offer virtual drop-in tutoring sessions.
4. Integrate learning games into the course.

EXAMPLES OF LEARNING MANAGEMENT SYSTEMS

- **Engrade** is an educational technology company that provides online <u>learning management system</u> and <u>educational assessment</u> products to K-12 school districts. Engrade was founded in 2003 and later acquired by <u>McGraw-Hill Education</u> in January 2014. (<u>McGraw-Hill Education</u> Journal, March 2015)

- **Schoology** is a virtual learning environment and social networking service for K-12 schools and higher education institutions that allow users to create, manage, and share academic content. Also known as a learning management system (LMS) or a course management system (CMS), the cloud-based platform provides tools needed to manage a virtual classroom lesson. During the COVID-19 pandemic, usage of Schoology has increased by 400% as more schools have shifted to virtual or hybrid learning. (Janne Hietale, 2009).

- **Edmodo** is an educational technology company offering a communication, collaboration, and coaching platform to Kids-12 schools and teachers. The Edmodo network enables teachers to share content, distribute quizzes, assignments, and manage communication with students, colleagues, and parents. Edmodo is very teacher-centric in their design and philosophy: students and parents can only join Edmodo if invited to do so by a teacher. Teachers and students spend large amounts of time on the platform, both in and out of the classroom. (Gartner,2008)

- **Moodle** is a free and open-source Learning Management System (LMS). It is developed on pedagogical principles. Moodle is used for blended learning, distance education, flipped classroom and other e-learning projects in schools, universities, workplaces and other sectors. It is used to create private websites with online courses for educators and trainers to achieve learning goals. (The Best Learning Management System Software guideline, 2002)

- **Google Classroom** is a free web service developed by Google for schools that aims to simplify creating, distributing, and grading assignments. The primary purpose of Google Classroom is to streamline the process of sharing files between teachers and students. It integrates Docs, Sheets, Slides, Gmail, and Calendar into a cohesive platform to manage student and teacher communication. Students can be invited to join a class through a private code, or automatically imported from a school domain. Teachers can create, distribute and mark assignments all within the Google ecosystem. Each class creates a separate folder in the respective user's Drive, where the student can submit work to be graded by a teacher. Assignments and due dates are added to Google calendar, each assignment can belong to a category (or topic). Teachers can monitor the progress for each student by reviewing revision history of a document, and after being graded, teachers can return work along with comments. (Pérez, Sarah, 2017)

THERE ARE SOME ADVANTAGES OF GOOGLE CLASSROOM

Educators like to be a part of a classroom hub, because there, teachers can communicate with their learners and provide them with constructive feedback whenever they needed it, and streamline the sharing of classroom documents and assignments. Google Classroom does exactly that; it is Google's ambitious addition to online education as well to the Learning Management System

industry, and it aims to make classrooms all over the world not only paperless, but also more effective. Google Classroom is available through Google Apps for Education, as at the moment it is aimed at academic institutions only, and not corporate training. *"One of the best things Google Classroom did [recently] is differentiated who you're doing assignments for,"* she says. Annette Wilson, technology coordinator for Randolph Corporation in Lynn, Indiana, 2018. With this tool students will be easily identified with their names.

GOOGLE CLASSROOM ADVANTAGES

It is easy to use and accessible from all devices.

Even if people are not a Google user, using Google Classroom is quite easy. Apart from being delivered through the Chrome browser, which makes it accessible from all computers, mobile phones, and tablets, it makes it really easy for you to add as many learners as you like, create Google documents to manage assignments and announcements, post YouTube videos, add links, or attach files from Google Drive. Learners will find it equally easy to log in, as well as receive and turn in assignments.

Effective communication and sharing.

One of the greatest advantages of Google Classroom is Google Docs; these documents are saved online and shared with a limitless number of people, so when teachers create an announcement or assignment using a Google doc, their learners can access it immediately through their Google Drive, as long as they have shared it with them. Furthermore, Google Docs are easily organized and personalized in Google Drive folders. In other words, teachers no longer need emails to share information; they just create a document, share it with as many learners as they want.

Speeds up the assignment process.

Assignment process has never been quicker and more effective as in Google Classroom, since teachers can easily check who has submitted their assignment and who is still working on it, as well as offer feedback immediately.

Effective feedback.

Speaking of feedback, Google Classroom gives the opportunity to offer online support to learners right away; this means that feedback becomes more effective, as fresh comments and remarks have bigger impact on learners' minds.

No need for paper.

There might be a day that grading papers would be impossible to imagine; Google Classroom is certainly interested in getting there as soon as possible. By centralizing E-learning materials in one cloud-based location, teachers have the ability to go paperless and stop worrying about printing, handing out, or even losing their learners' work.

Great commenting system.

Learners can comment on specific locations within pictures for a variety of online courses. Furthermore, educators can create URLs for interesting comments and using them for further online discussion.

It is for everyone.

Educators can also join Google Classroom as learners, which mean that they can create a Google Classroom for them and their colleagues and use it for faculty meetings, information sharing, or professional development.

GOOGLE CLASSROOM DISADVANTAGES

Difficult account management.

Google Classroom doesn't allow access from multiple domains. Furthermore, facilitators cannot log in with their personal Gmail to enter it; they need to be logged in Google Apps for Education. As a result, if they have already a personal Google ID, it may be frustrating to juggle multiple Google accounts. For example, if they have a Google document or a photo in their Gmail and they want to share it in the Google Classroom, facilitators will need to save it separately in their computer's hard drive, log out, and then log in again with their Google Classroom account.

Limited integration options.

Google Classroom has not yet integrated with Google Calendar, or any calendar whatsoever, which may cause some problems with organizing material and assignment deadlines.

Many steps to follow

First time Google users may get confused, as there are several buttons with icons familiar only to Google users. Additionally, despite enhanced integration between Google and YouTube, which significantly helps video sharing, support for other popular tools is not built in, and educators may find it frustrating that they will need to, for example, convert a simple Word document to a Google

Doc to work with. All in all, they will only find themselves comfortable in the Google Classroom environment as long as the tools they are using are aligned with Google services.

No automated updates.

Activity feed does not update automatically, so learners will need to refresh regularly in order not to miss important announcements.

Difficult learner sharing.

Learners cannot share their work with their peers, unless they become "owners" of a document, and even then, they will need to approve sharing options, which will create a chaos if they want to share a document with them.

Editing problems.

When teachers create an assignment and they distribute it to learners, learners become "owners" of the document and they are allowed to edit it. That means that they can delete any part of the assignment they want, which could cause problems, even if it happens accidentally.

No automated quizzes and tests.

Google Classroom cannot easily replace Management System because it does not provide automated quizzes and tests for learners. Educators consider it more suitable for blended learning experience than a fully online program.

CHALLENGES OF ONLINE TEACHING PROCESS

With education worldwide being thrown into disarray by coronavirus, more and more educators are being forced to teach their students from home. They might not have signed up for distance

teaching, but in true teacher style it is time to throw the lesson plan out the window and make the best of a bad situation. To get them prepared, they have to run-down on the five main challenges of distance teaching and the strategies they need to navigate them with confidence.

Isolation

Learning from home can be lonely. Without the noise of the classroom setting and the company of their peers, it is no surprise that some students can begin to feel a strong sense of isolation that slowly erodes their desire to learn. Despite what they say, many students will find that they miss school when the alternative is to be desk-bound at home. Isolation can also undermine many of the instructional strategies that teachers take for granted in their classrooms. Group work, class discussion and collaborative activity can disappear from the program entirely if we are not careful, and with them go the associated levels of student engagement and rich learning that those experiences provide. (Ainsley Harris, 2014)

Lack of motivation in online learners

As hard as distance teaching might be for teachers, it's likely even harder for their students. Students gone from classrooms explicitly designed to support learning, to bedrooms and kitchen tables where distractions are plentiful and expert support is not always on hand.

Technical difficulties with online teaching tools

Assess whether the students have reliable access to technology before they even start. It is clear that not every home will always have a reliable internet connection or readily available device for students to use. Educators have communication with parents though different ways as email, message or text them. It will give parents the opportunity to flag these issues so that they can

prepare to accommodate such students ahead of time to do their assignments in the best way and time.

It is also important to remember that, for all the talk of the students being 'digital natives', many of them are not that proficient when it comes to tackling unfamiliar software or using it in a responsible manner.

It is limited

Google Classroom has become a lifeline for schools and families; it has also become a source of frustration. For one, the product has been carefully designed to support workflows associated with in-person learning—workflows that make far less sense in a virtual or hybrid context. Secondly, the product is inherently limited by Google's careful neutrality on questions of pedagogy and what kind of virtual learning is most effective. Google wants educators to turn to Classroom for answers; its new "Teach from Anywhere" site, for example, showcases a variety of product tutorials. But teachers with questions about the best, research-based models for effective virtual instruction are likely to walk away unsatisfied.

According to *Avni Shah*, 2014, Google's vice president for education, "*Technology in education has the ability to accelerate and help teachers become great*," but most of the time need to be provided with functionality to do what they know and work the best for their students.

Google Classroom Falls Short

Features like the ability to tailor assignments to individual students of small groups sound like progress, and in many cases, they can help schools cope. But too often, teachers lack the foundational training and skills to use them effectively, let alone apply them to novel situations,

like virtual school. Many teachers start with whatever technology tool is available to them—because it is free, that is often Google Classroom. There are tons of tools out there, and teachers feel pressure to learn and incorporate all of them.

Looking for Answers

Up until the arrival of COVID-19, Google Classroom brought practices like live commenting on a shared document into the mainstream and built a system in which teachers get familiar with those types of practices to become certified and accept invitations to share their knowledge at conferences and other schools. In this current moment, as it becomes a modern tech platform. It all sounds good but "with remote learning, or hybrid learning", they are all just trying to make sure that all the pieces are good and that the pieces can work together, without trying to have a strong opinion about how to do that, because the situation for every school will look really different and that is really what is driving their choices. However, schools are starting to realize that "Google Classroom" is not enough to tackle the current crisis in education.

LMS, e-learning, blending learning or hybrid learning are some terms teachers were not familiar with in their past years of teaching. Nowadays, they must work and try to do their best using different platforms and their tools, they have to search information and train themselves to know what is necessary, even though the technology is not the strongest resource they could use, there is no doubt that teachers are going to keep themselves doing their best instead the hard difficulties they could face. Taking all these elements into account researchers aim at exploring: "Advantages and disadvantages that teachers face while teaching through Google Classroom platform at Centro Escolar República de Nicaragua in Quezaltepeque, La Libertad, year 2020".

METHODOLOGY

The research

Researchers presented the type of approach this research took and the reasons why it was chosen as the most appropriate to achieve the purpose of this research work. Then, the type of study that helped the research group answer more specifically and concretely the research questions was described. In a consecutive way, the area where this work took place was explained, as well as the population that concerns this research; furthermore, the population that was considered to carry out the study was described. Finally, the researchers explained the techniques and the instrument that was used to collect the necessary information.

Type of approach

The type of approach that was used in this research was the mixed method since both quantitative and qualitative approaches were used. Qualitative data was collected and analyzed since each question of the questionnaire was focused on getting teachers´ perspectives and opinions and the results were used to inform the subsequent quantitative phase where research data was tabulated. The mixed method approach was commonly employed by researchers who were more comfortable with quantitative research and weight was given primarily to the quantitative findings. For the research group, the perceptions and answers of the participants were considered to explore their performance as teachers through an online platform while the Covid-19 Pandemic, year 2020. The qualitative research allowed focusing on understanding the phenomenon from the point of view of the participants in a natural environment and in relation to the context of the research.

This approach is a process that collects the opinions and perceptions of the participants to have a more accurate perspective of the phenomenon and is focused on the population being studied. As

a result, this approach facilitated the researchers to interpret, to describe, to explore a new field, to evaluate the performance of a teacher, to evaluate an action. Therefore, the quantitative and qualitative nature of the information to be obtained with this research helped the researchers to identify: "Advantages and disadvantages that teachers face while teaching though Google Classroom Platform at Centro Escolar República de Nicaragua in Quezaltepeque, La Libertad, year 2020".

Type of study

The type of study that was chosen as the most ideal to carry out this project was the descriptive study since this type of study is about collecting data to describe attitudes, opinions, perceptions and behaviors of a population. This study selected a set of questions and analyzed each independently.

In order to collect the descriptive information for this research, the researchers selected teachers from Centro Escolar República de Nicaragua, year 2020. The information was obtained through a Survey which was used to allow the individual to express their opinions for particular closed or opened questions. For this research, the instrument had a set of closed questions, which were analyzed in detail to get as real information as possible   - since survey is a research method used for collecting data from a predefined group of respondents to gain information and insights into various topics of interest-.

Theory of social constructivism

To recruit the participants and obtain the information that helped the researchers to answer the research questions and achieve the objectives, the research group relied on the theory of social constructivism of Lev Vygotsky (Hodson Derek, 1998), because it allowed researchers to know the necessary information. Moreover, this theory helped the researchers to understand the work that teachers were developing in their teaching process, as well as how they faced the Covid-19 Pandemic.

Research design

The kind of research that the team used is non-experimental. This is research that lacks the manipulation of an independent variable, random assignment of participants to conditions or orders of conditions, or both, the researchers will not manipulate the variables, and they made use an online questionnaire in order to collect the data.

The instruments that were used were the survey as a technique, and the questionnaire with closed questions as an instrument for this research, but this was presented in an online platform for all the participants, since the Covid-19 Pandemic made the researchers work this research from distance of the participants.

Determination of population

The universe of the research was formed by 35 teachers who work though Google Classroom Platform at Centro Escolar República de Nicaragua in Quezaltepeque, La Libertad, year 2020".

 To gather the required information, the researchers looked for the total amount of participants, the 35 teachers at Centro Escolar República de Nicaragua, teachers from all different levels and specialties, since all of them carried out the teaching and learning process through Google

Classroom during the Covid-19 Pandemic in the year 2020. The participants filled out an online survey in which everyone expressed how much each question was related with their personal experiences and their performance as teachers during the year 2020, while the Covid-19 Pandemic. These are the teachers at Centro Escolar República de Nicaragua, in Quezaltepeque, La Libertad who have worked with Google Classroom Platform in the year 2020 to continue with the teaching process, despite facing the Covid-19 Pandemic. They answered an online questionnaire which link was sent.

N°	Teacher	Subject	Grade taught in 2020
1	Participant 1	All the subjects	Kinder garden
2	Participant 2	All the subjects	Kinder garden
3	Participant 3	All the subjects	Kinder garden
4	Participant 4	All the subjects	Kinder garden
5	Participant 5	All the subjects	1st
6	Participant 6	All the subjects	1st
7	Participant 7	All the subjects	1st
8	Participant 8	All the subjects	2nd
9	Participant 9	All the subjects	2nd
10	Participant 10	All the subjects	3rd
11	Participant 11	All the subjects	3rd
12	Participant 12	All the subjects	3rd
13	Participant 13	Social Science	4th
14	Participant 14	Mathematics	4th

15	Participant 15	Social Science	4th
16	Participant 16	Language	5th
17	Participant 17	Science	5th
18	Participant 18	Social Science	6th
19	Participant 19	Mathematics	6th
20	Participant 20	Science	6th
21	Participant 21	Language	7th
22	Participant 22	Science	7th
23	Participant 23	Mathematics	7th
24	Participant 24	Social Science	8th
25	Participant 25	Mathematics	8th
26	Participant 26	Social Science	9th
27	Participant 27	English	9th
28	Participant 28	Social Science	9th
29	Participant 29	Language	9th
30	Participant 30	Aula Acelerada	4th-6th
31	Participant 31	Aula Inclusiva	4th -6th
32	Participant 32	TICS	1st-9th
33	Participant 33	Physical Education	1st-9th
34	Participant 34	Physical Education	1st-9th
35	Participant 35	Science	4th-6th

Technique (Survey)

The survey technique involves the collection of primary data about subjects, usually by selecting a representative sample of the population or universe under study, through the use of a questionnaire. It is a very popular technique since many different types of information can be collected, including attitudinal, motivational, behavioral and perceptive aspects. Moreover, it allows for standardization and uniformity both in the questions asked and in the method of approaching subjects, making it far easier to compare and contrast answers by respondent group. It also ensures higher reliability than some other techniques.

For the development of this research, the 35 teachers who have worked through Google Classroom Platform at Centro Escolar República de Nicaragua in Quezaltepeque, La Libertad, year 2020 were considered. They were selected to be the population of this research project.

The way in which the data was collected was through the quantitative technique: survey, which helped to answer accurately the research questions asked at the beginning of this study. To obtain the information, the instrument was designed in Spanish, since not all the participants spoke English.

Instrument:

Online questionnaire: A questionnaire is a research instrument that consists of a set of questions or other types of prompts that aims to collect information from a respondent. A research questionnaire is typically a mix of close-ended questions and open-ended questions. Open-ended, long-form questions offer the respondent the ability to elaborate on their thoughts. The data collected from a data collection questionnaire can be both qualitative as well as quantitative in nature.

In this case, the participants were provided with the link of the online questionnaire which they pointed out the degree of agreement or disagreement that they had with each question from their appreciations and experiences using Google classroom to carry out the teaching learning process while the Covid-19 Pandemic in a public institution. Finally, it was necessary to protect the identity of each participant, so the research group did not ask teachers to mention or provide personal information that could reveal their identities.

This was the link that the participants used for answering the questionnaire:

https://docs.google.com/forms/d/e/1FAIpQLSfVvlTej-

D1eEtmZBecgC3HbyZhhPZKkC4XEy9ZP3c6HTKWZA/viewform?vc=0&c=0&w=1&flr=0

Analysis of the instrument

When the research group collected all the information through the online questionnaire, each question was analyzed separately in order to identify the most frequent answers among all the participants. The ranges in the instrument went in different criteria as: First from Very poor to Good. Another scale goes from: Strongly disagree to Strongly agree, a third scale goes from Too little to Far too much, and finally from Slightly satisfied to Completely satisfied. All the information gathered was displayed and analyzed with SPSS, a statistical software that allowed the team to enter the data collected in the instrument and created the tables with the percentages of each question. Finally, graphs were used to display and analyze the data properly and accurately.

DATA ANALYSIS

The analysis presents the information gathered after the administration of the instrument, the Online Questionnaire, directed to teachers who work through Google Classroom Platform at Centro Escolar República de Nicaragua in Quezaltepeque, La Libertad, year 2020. The total population of the participants who answered the instrument was 35, which represents the 100% of the population.

The instrument can be encompassed in six areas:

1. The most useful strategies
2. Access to technological tools
3. Distance modality and its economic impact
4. Level of commitment when working through Google Classroom.
5. Necessary resources provided by the school in distance modality.
6. Planning and implementation of LMS.

Each area was created based on the objectives and research questions proposed for this study. The research group used the instrument that is considered to be the most appropriate (Online questionnaire) to gather information related to the topic to achieve the objectives and give answers to the research questions.

In order to administer the instrument, the researchers sent the online questionnaire link to teachers who work at Centro Escolar República de Nicaragua, Quezaltepeque. The purpose of implementing this instrument was to explore the different points of view the participants have towards their performance as teachers during the year 2020, when the Covid-19 arrived to El Salvador. The results for this research are presented below:

Graphical presentation of the results obtained

1- How do you rate the management of the Covid-19 pandemic by the educational institution you work for?

| Criteria	Frequency	Percentage
Good	10	28.6%
Fair	22	62.9%
Poor	3	8.5%
Total	35	100%
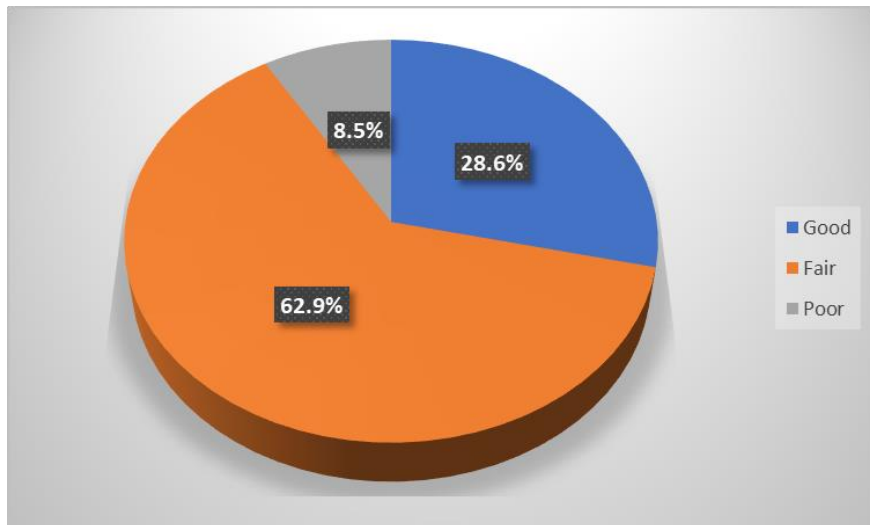
Most of the population (62.9%), expressed that the institution handled appropriately the Covid-19 Pandemic. Only 8.5% expressed a bit disagreement with the question before mentioned and 28.6% admitted the management of this pandemic was really good in the institution they work for.

It can be inferred that Centro Escolar República de Nicaragua managed the Pandemic appropriately. They were capable of identifying their weaknesses and strengths facing this pandemic, meaning that they were able to enhance their classes and the teaching environment in the Covid-19 scenario. It is important to emphasize that an average of the population expressed that the institution held this situation in a positive way. As a result, the methodology implemented was assertive, diverse and integral and the communication with students during the pandemic was clear and allowed an excellent interaction between the students, the teacher and the school.

2- I believe the staff was ready for the implementation of a LMS (Google Classroom) in the teaching process.

| Criteria	Frequency	Percentage
Strongly agree	5	14.3%
Agree	16	45.7%
Neither agree nor disagree	8	22.9%
Strongly disagree	6	17.1%
Total	35	100%
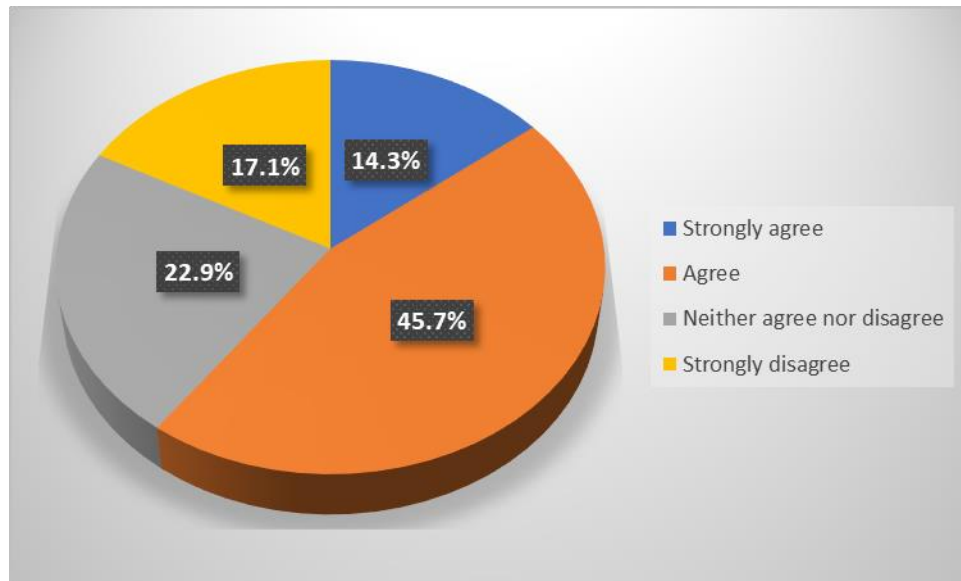
The majority (45.7%) of the population expressed agreement over the knowledge of the use of Google classroom in terms of its content, preparation and practice as teachers had. Only 22.9% admitted having neither agreement nor disagreement. 14.3% stated that they strongly agree against 17.1% who strongly disagree.

It can be analyzed that teachers considered that most of their staff had the necessary skills to implement the use of LMS, specifically at that difficult time where the Covid-19 pandemic came to change lifestyles and of course teaching styles for the school. Besides, there was a percentage who expressed disagreement and some others reserved their opinions.

3- Did you have previous knowledge on how to use Google Classroom and its tools properly?

| Criteria	Frequency	Percentage
Far too much	2	5.7%
Too much	6	17.1%
About right	15	42.9%
Too little	12	34.3%
Total	35	100%
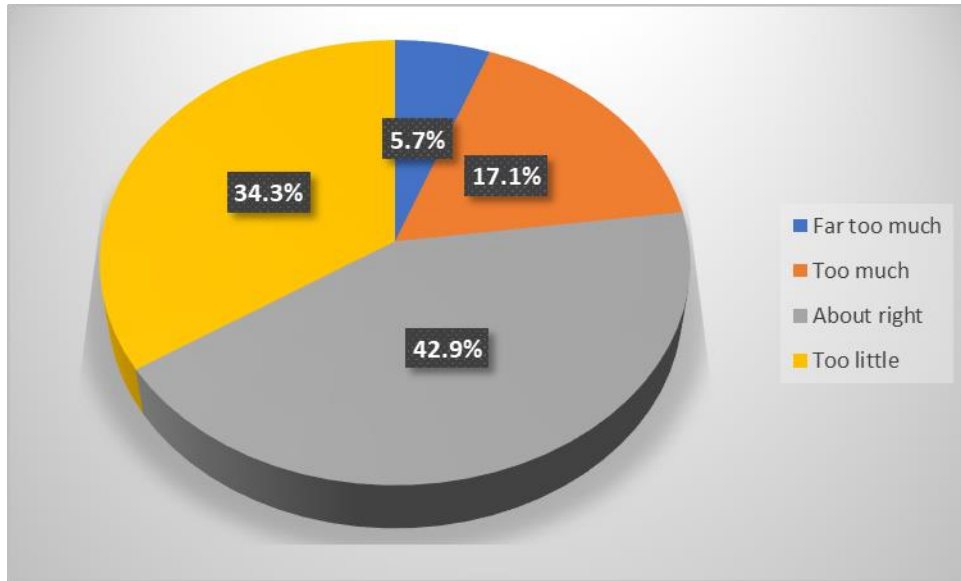
34.3% of the participants claimed to have too little knowledge about Google Classroom management, close to those opinions there is a 42.9% which expressed to have just the necessary information about that platform and just 17.1% knew too much about it. However, 5.7% stated they knew far too much about the use of Google Classroom.

It can be assumed that most of the teachers expressed their lack of knowledge of the Google Classroom platform uses. Just few teachers said they had used the platform before or had prior knowledge of its use

4- How difficult was to deal with the use of technology to continue with the teaching learning process?

| Criteria	Frequency	Percentage
Far too much	5	14.3%
Too much	8	22.9%
About right	11	31.4%
Too little	11	31.4%
Total	35	100%
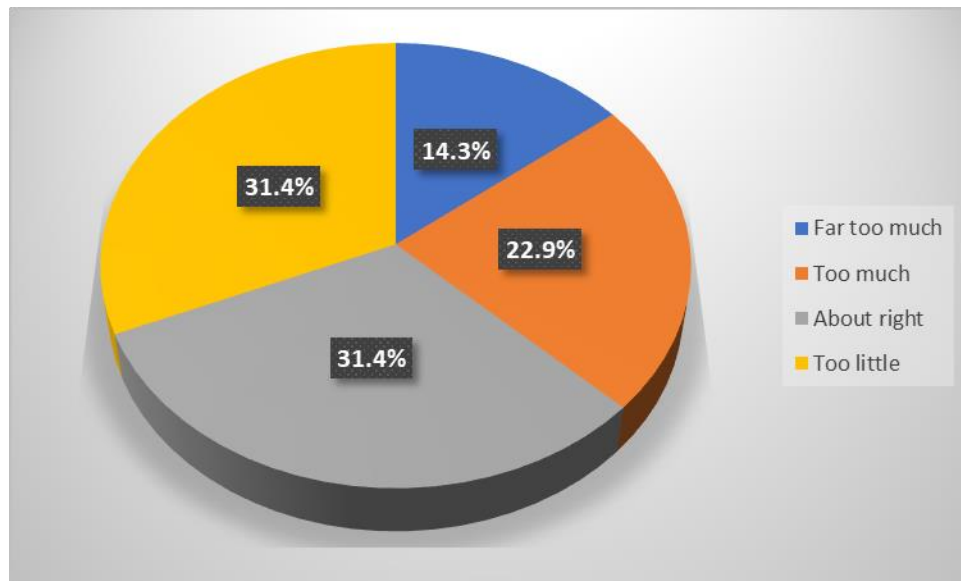
The majority of the participants (62.8%) said that the use of Google Classroom technology was such a difficult task. However, 22.9 expressed to have too much knowledge about its uses, and 14.3% went beyond with having far too much knowledge about it.

It can be inferred that most of the population lacked knowledge of technology and as a result it was difficult for them to deal with the use of this. There were also a number of participants who considered to work with the Learning Management System was not difficult at all.

5- How satisfied were you after you finished teaching classes every day?

| Criteria	Frequency	Percentage
Completely satisfied	12	34.3%
Very satisfied	12	34.3%
Moderately satisfied	10	28.6%
Slightly satisfied	1	2.9%
Total	35	100%
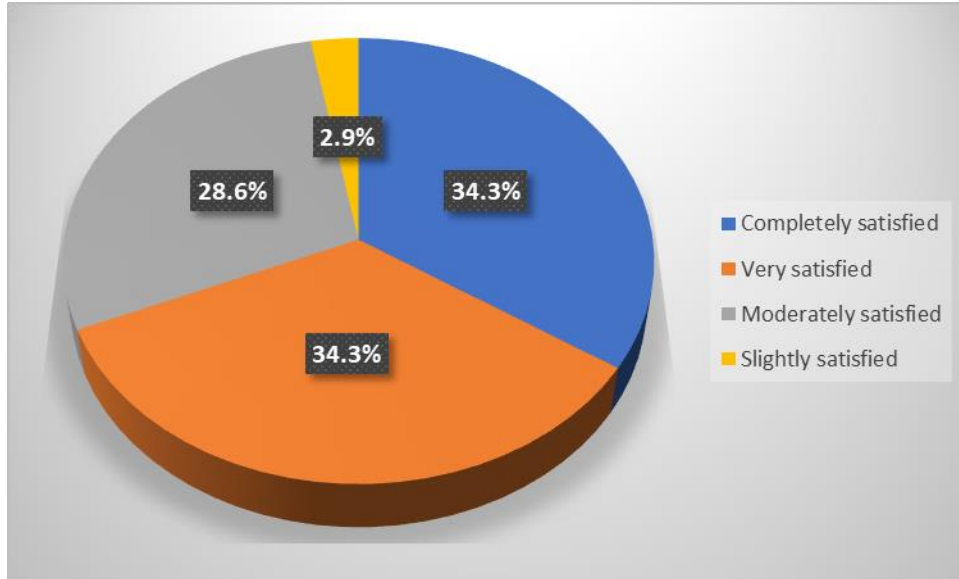
34.3% of the surveyed teachers agreed to the fact that they were very satisfied after finishing teaching their class using the Google Classroom Platform. Besides, there was a 34.3% who expressed to have a complete satisfaction with their performance. 28.6% said to have been moderately satisfied and just 2.9% slightly satisfied.

It can be assumed that teachers considered their teaching methodology was assertive, diverse, inclusive and integral, instead of the technological trouble that they could have had by using Google Classroom, most of them were very satisfied with their work. It is important to take into account the percentage who expressed disagreement with their performance, 3% were not inclined to be satisfied with their implemented methodology.

6- How do you rate the student's acceptance and performance with the implementation of virtual classes?

| Criteria	Frequency	Percentage
Good	7	20%
Fair	21	60%
Poor	6	17.1%
Very poor	1	2.9%
Total	35	100%
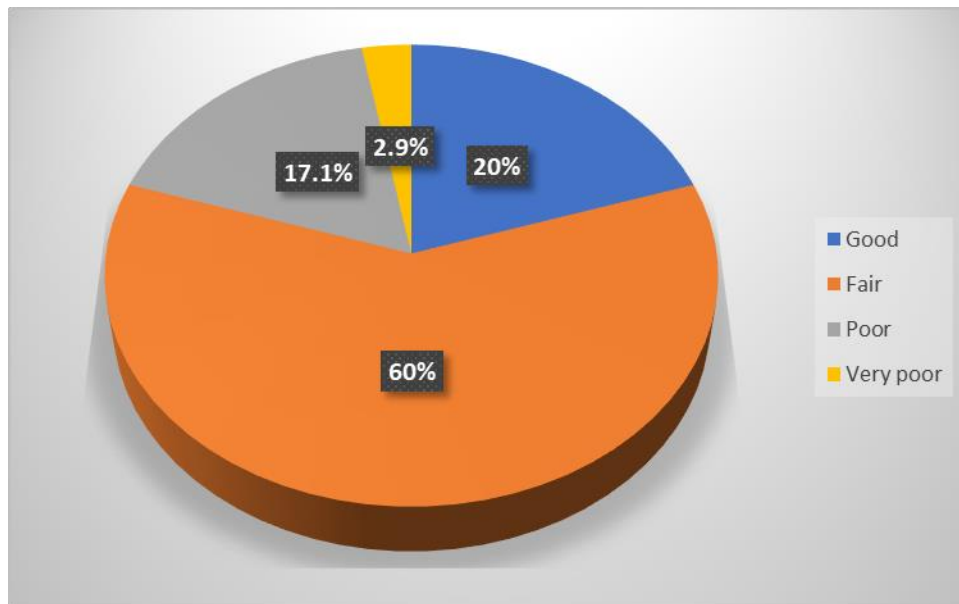
A large percentage (60%) of the participants ensured that students' motivation did not lack since they showed acceptance and good performance in their virtual classes during the year 2020, facing the Covid-19 Pandemic. However, there was 20% who gave opinions about good acceptance, 17.1% expressed a fair acceptance and just 2.9% considered it poorly.

 It can be assumed that the motivation for the teachers and students played an important role in the teaching learning online environment, so they were able to have a good communication and allowed students to feel comfortable enough to be productive during the virtual classes.

7- How do you rate the support and motivation you received from the educational center and its authorities?

| Criteria	Frequency	Percentage
Good	8	22.9%
Fair	21	60%
Poor	4	11.4%
Very poor	2	5.7%
Total	35	100%
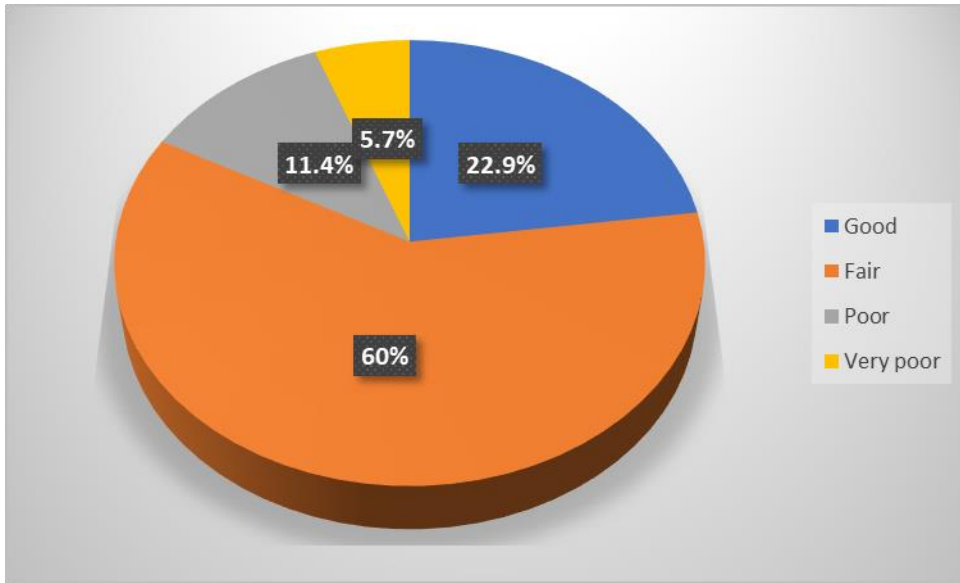
82.9% of the population who filled out the instrument, agreed on the importance of the support and motivation they received from the educational center and its authorities. As a result, they expressed as good and fair the support they received. Nevertheless, 11.4% partially disagreed with the question above. And only the 5.7% qualified the support as very poor.

It can be assumed that authorities from the educational center tried to offer the necessary help for teachers, so that, they could continue with the teaching and learning process using the virtual platform Google Classroom to have good communication with their students, so the online environment was the appropriate for the students to show confidence and facilitate the e-learning-teaching process.

8- How aware do you consider the institution was about the difficulties you could have while teaching your classes?

| Criteria	Frequency	Percentage
Far too much	3	8.6%
Too much	7	20%
About right	18	51.4%
Too little	7	20%
Total	35	100%
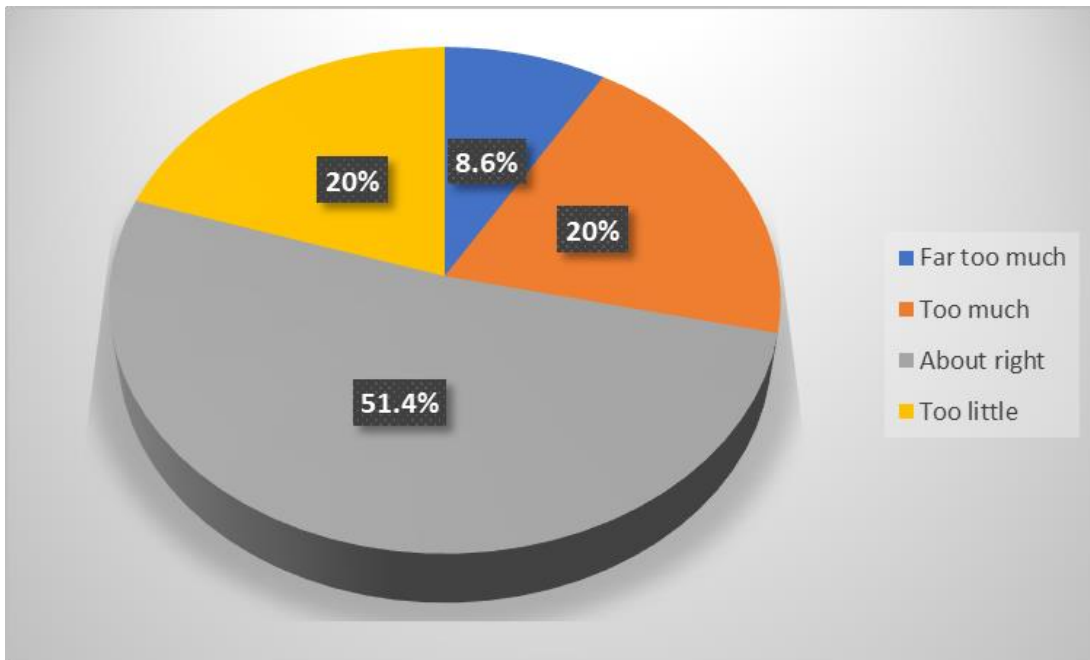
80% of the population agrees on the relevance of being aware in difficult situations for the educational institution and supported the idea of their school in appropriately being alert to supply teachers' necessities. Only 20% of the participants expressed that the institution did not show enough awareness of the possible difficulties teachers might have when teaching in this modality.

It can be assumed that teachers were aware to difficulties they had while teaching their classes. They knew how to deal with difficult educational problems while facing Covid-19.

9- How efficient was the availability and delivery of the digital didactic materials to teach your classes?

| Criteria	Frequency	Percentage
Good	12	34.3%
Fair	12	34.3%
Poor	8	22.8%
Very poor	3	8.6%
Total	35	100%
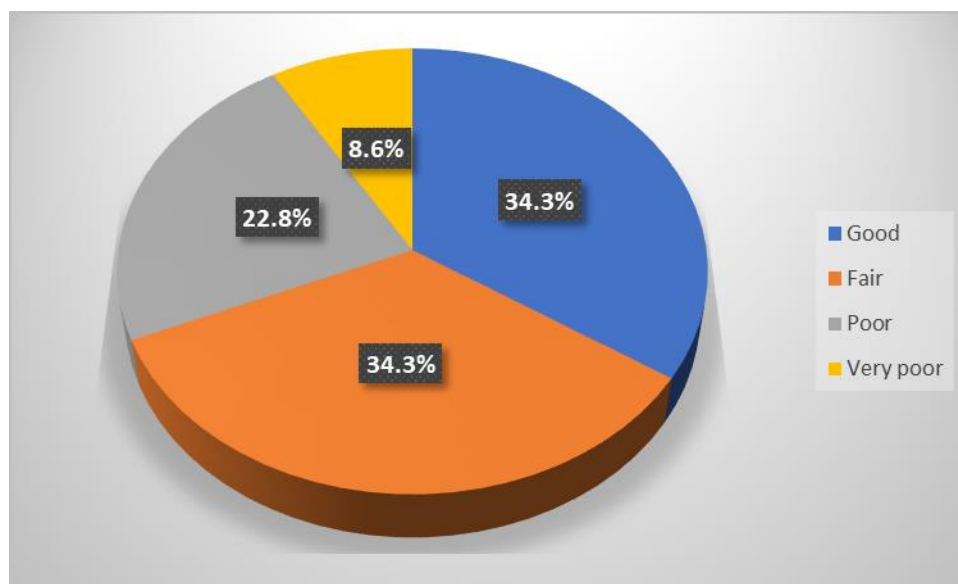
68.6% of the population who filled out the instrument agreed that access and delivery of digital didactic materials was rapidly and efficiently provided by the educational center to give continuity to the teaching and learning process. 31.4% of the participants centered their opinions between poor and very poor to make reference about the efficiency to deliver the digital didactic materials.

According to most of the participants the access, availability and delivery of digital didactic material was done efficiently by the people in charge in the educational center and in can be inferred that for the MINEDYCT as well. On the other hand, one third of the population said it was not so efficient for them.

10- From the list below. Which of the following items did you have access to during the implementation of online classes through Google Classroom? You can choose more than one option.

Criteria	Yes	No
Computer	18	17
Smartphone	26	9
Tablet	4	31
Internet Connection	25	10
Mobile data	23	12
An adequate area	15	21
Electricity Service	32	3
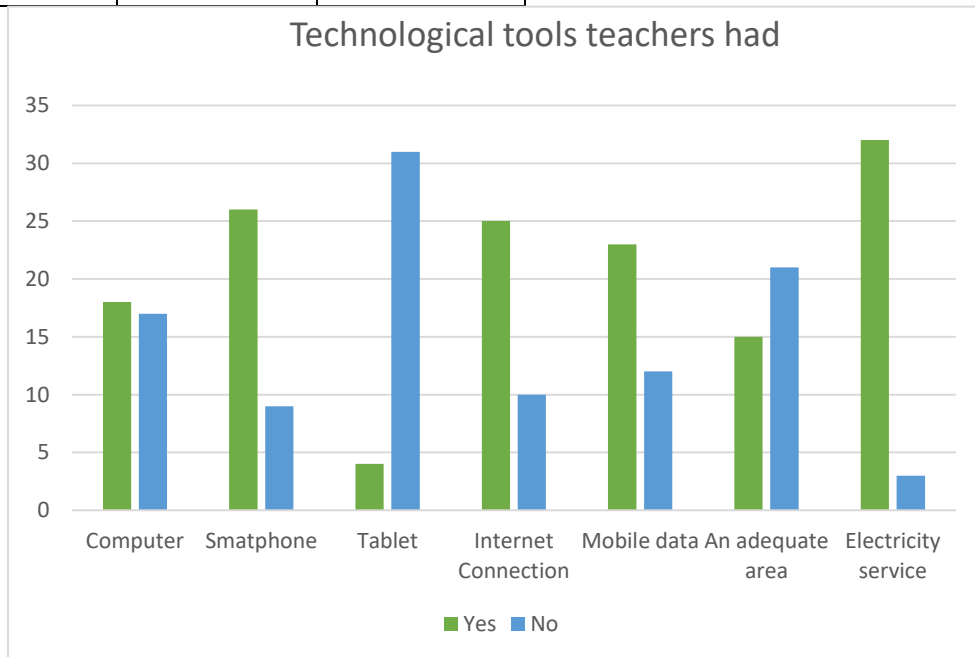
The majority of the population considered electricity and smartphones were the most accessible item to give continuity to the teaching and learning process with the implementation of online classes. Near to three thirds expressed they had connectivity to use internet against the other half who had computers. The item, most of the population does not have was a tablet, and an adequate area to work as well.

It can be assumed that most of the participants had at least one or two electronic items including access to internet or mobile data at home to continue with their online lesson, since the necessary resources to teach classes is essential for teachers. Working in an unknown way and platform was something challenging for the participants, so they needed to be supported by the administration of the school to get success. The opinions gathered expressed the administration provided the resources and support that were required for teachers. That support was related to connection, electronic devices, and access to virtual student information to cope with education and Pandemic.

Almost all the participants recognized that having technological tools was extremely important to deal with the online teaching process. However, a small percentage considered it was not important.

The majority of the population agreed that without technological tools at home it could not have been possible to develop their online classes because they were extremely important to have communication with the students.

11- How important do you consider it was to have the tools needed to deal with the online teaching process?

| Criteria	Frequency	Percentage
Extremely important	15	42.9%
Very important	19	54.3%
Moderately important	1	2.8%
Total	35	100%
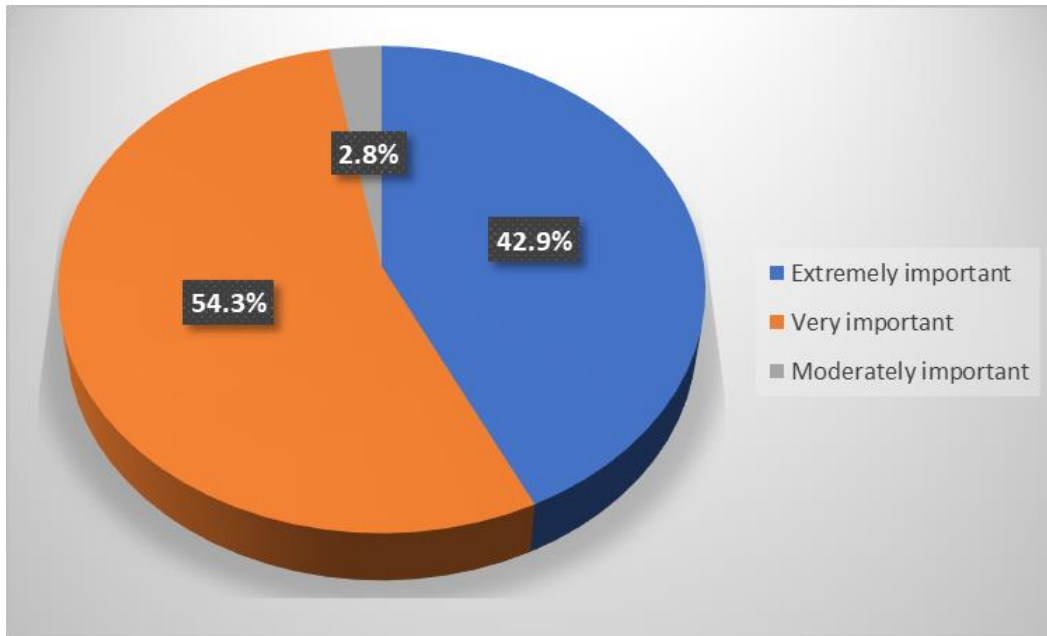
97.2% of the participants recognized that having technological tools was extremely important to deal with the online teaching process. 2.8% considered it was not important though.

The majority of the population agreed that without technological tools at home it could not have been possible to develop their online classes because they were extremely important to have communication with the students.

12- Do you consider appropriate to adapt the contents and didactic materials to teach through Google Classroom?

| Criteria	Frequency	Percentage
Extremely proper	10	28.6%
Proper	24	68.6%
Relatively proper	1	2.8%
Total	35	100%
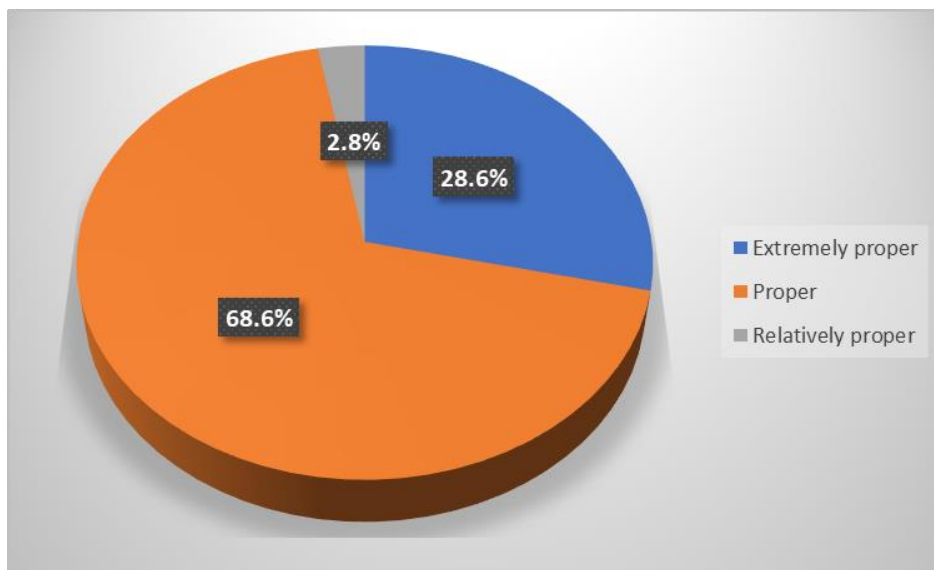
97.2% almost all the population agreed that correct content adequacy was extremely relevant to have a successful teaching and learning process and the appropriate use of didactic materials is crucial to teach in Google Classroom, since every teacher needed to call students´ attention. Besides, there was a 2.8% who manifested that it was not relevant at all.

It can be inferred that almost all the teachers who worked at Centro Escolar República de Nicaragua, Quezaltepeque created a successful adequacy of contents at that moment that the education was shifted from face-to face to distance modality using Google Classroom.

13- How do you rate the performance and efficiency of Google Classroom to teach your classes?

| Criteria	Frequency	Percentage
Good	15	42.9%
Fair	18	51.4%
Poor	2	5.7%
Total	35	100%
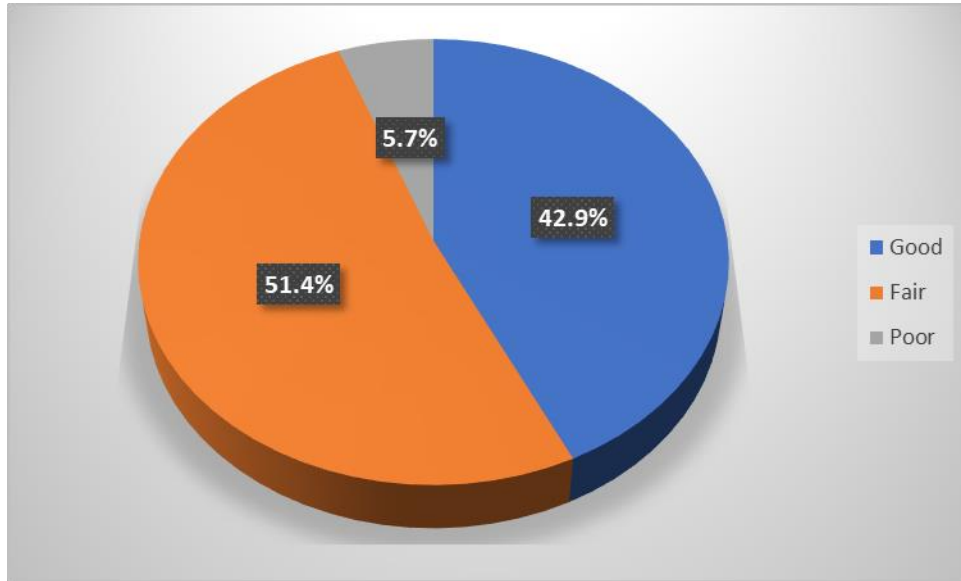
94.3% of the population assessed as good/fair the Google Classroom efficiency and performance. 5.7% said it was poor and none of the participant gave a different opinion.

Most of the participants who answered the questionnaire assessed Google Classroom as a very assertive, efficient and adequate platform. It can be inferred that most of them did not have big problems using this online resource to give continuity to the lessons they had to teach. It is important to mention that just few participants did not agree with Google Classroom efficiency.

14- How satisfied are you with the competences and new skills you have learned by teaching online classes?

| Criteria	Frequency	Percentage
Completely satisfied	7	20%
Very satisfied	20	57.1%
Moderately satisfied	8	22.9%
Total	35	100%
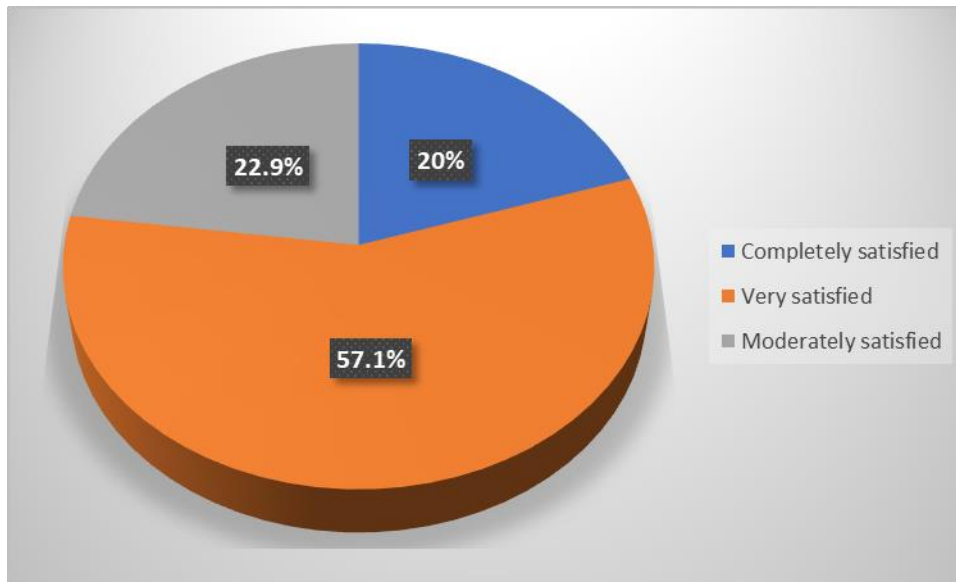
77.1% of the population who filled out the instrument feel completely satisfied about the competences and new skills they have acquired by using Google Classroom. However, 22.9% disagreed about the question above.

According to the results, the satisfaction is noticed with most of the participants' opinions because they have got new abilities and competences to teach online classes which will help them for current and future classes. Instead, there was a small percentage that expressed to be moderately satisfied.

15- According to your experience, which elements do you think could be improved to enhance the implementation of online classes in the future to ensure the efficiency and quality of the education? More than one option can be chosen.

| Criteria	Yes	No
Training	30	5
Updates	31	4
Free Internet	32	3
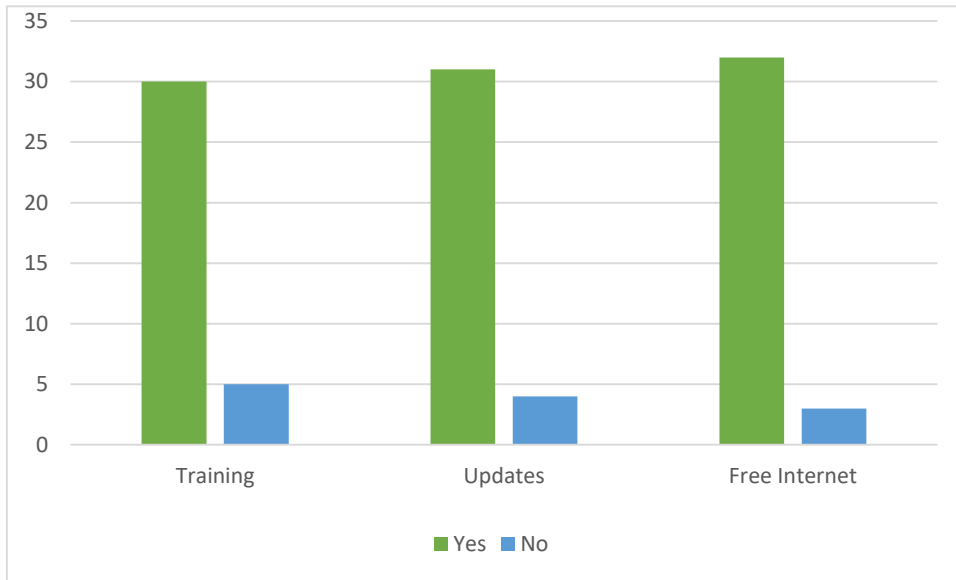
Almost one third of the population had alike results to show what could be improved to enhance the implementation of online classes, they all agreed in the three elements: training, updates, and free internet. Almost all the participants expressed the same idea.

It can be inferred that a general opinion that participants had was related to improve the implementation of online classes in the future to ensure the efficiency and quality of the education through trainings, updates and free internet.

16- Which is the most useful strategy you applied when working in Google Classroom during the Pandemic Covid-19, year 2020?

| Criteria	Frequency	Percentage
Share explanations about the topics	9	26%
Upload videos with explanations	19	54%
Do live classes	15	43%
Upload guides to answer them	9	26%
Provide help through another platform	13	37%
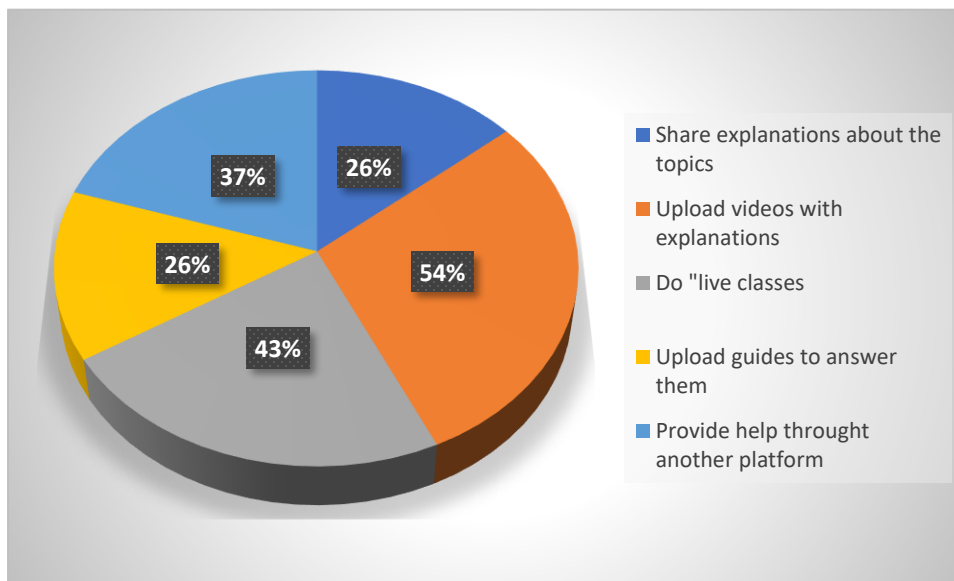
54% of the population agreed that the most useful strategy when working through Google Classroom was upload videos with explanations about the topics and do "live classes" with 43%. 26% prefer receiving help through another platform or explanations about the topics.

More than half of the population considered that the most useful strategy to work in Google Classroom was to upload videos with explanations about the topics, another strategy was "live classes". It can be inferred that the level of acceptance of these activities called students attention to continue working in this platform with efficiency.

17- How effective were the strategies you used to work in the teaching and learning process during the year 2020?

Criteria	Frequency	Percentage
Far too much	4	11.4%
Too much	17	48.6%
About right	14	40%
Total	35	100%
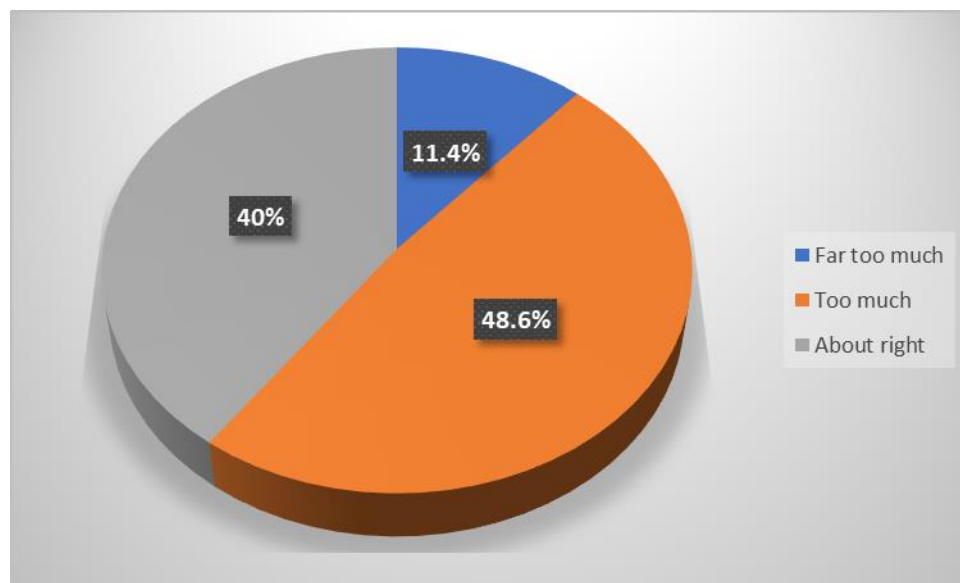
60% of the participants who filled out the questionnaire said that the strategies they used in Google Classroom were very effective to follow students learning process. 40% manifested to use just the necessary strategies.

It is shown that most of the strategies applied to work in Google Classroom Platform were appropriate, effective and assertive during the teaching and learning process in the year 2020.

18- Did teachers have the appropriate technological support staff and infrastructure to deal with the online teaching process during year 2020 in the institution you work for?

Criteria	Frequency	Percentage
Completely satisfied	2	5.7%
Very satisfied	13	37.1%
Moderately satisfied	17	48.6%
Slightly satisfied	3	8.6%
Total	35	100%
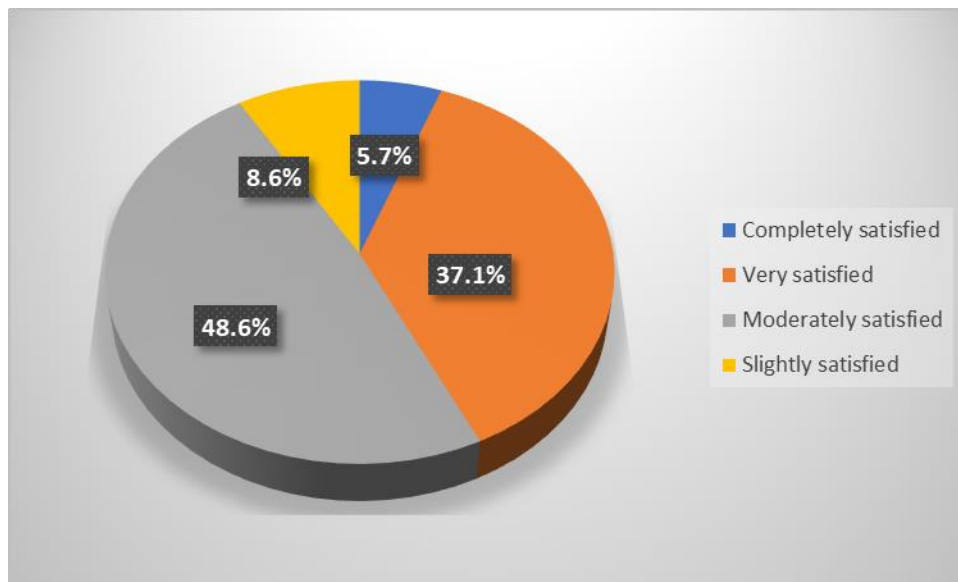
48.6% almost half of the population were moderately satisfied with the technological staff and infrastructure to deal with the online teaching and learning process during the year 2020. There was a 37.1% who were very satisfied with the question above and just 8.6% was slightly satisfied. However, there was a 5.7% who answered to have been completely satisfied.

More than a half of the population considered they had just the essential technological staff and infrastructure to deal with the online teaching and learning process, even though a very small group of the participants said it was necessary to have more appropriate resources in these areas.

19- Did the implementation of Google Classroom required some expenses that caused an economic impact on teachers and students' families?

Criteria	Frequency	Percentage
Far too much	10	28.6%
Too much	11	31.4%
About right	8	22.9%
Too little	6	17.1%
Total	35	100%
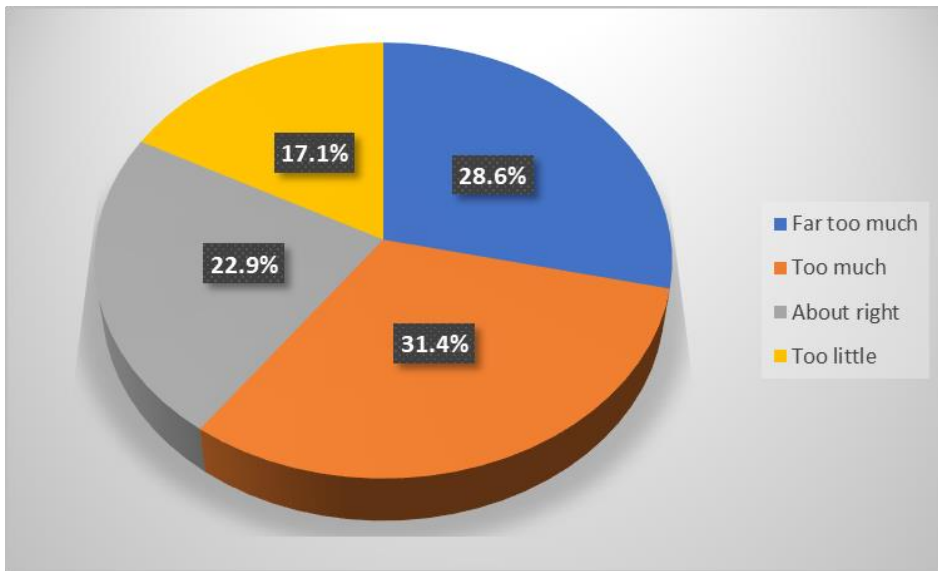
60% of the participants agreed with the opinion that using Google Classroom implied too much cost for teachers and students. As well, 22.9% expressed that the expenses were about right. In spite of 17.1% which considered that the use of Google Classroom did not bring them expenses.

It can be inferred that when participants expressed that Google Classroom brought them expenses, they are making reference about the cost that internet connection implies, since they needed to have unlimited internet from home to work which was paid by themselves.

20- Do you consider teachers and students have the necessary economic stability to cope with the expenses needed to use the Google Classroom platform?

Criteria	Frequency	Percentage
Far too much	3	8.6%
Too much	4	11.4%
About right	15	42.9%
Too little	13	37.1%
Total	35	100%
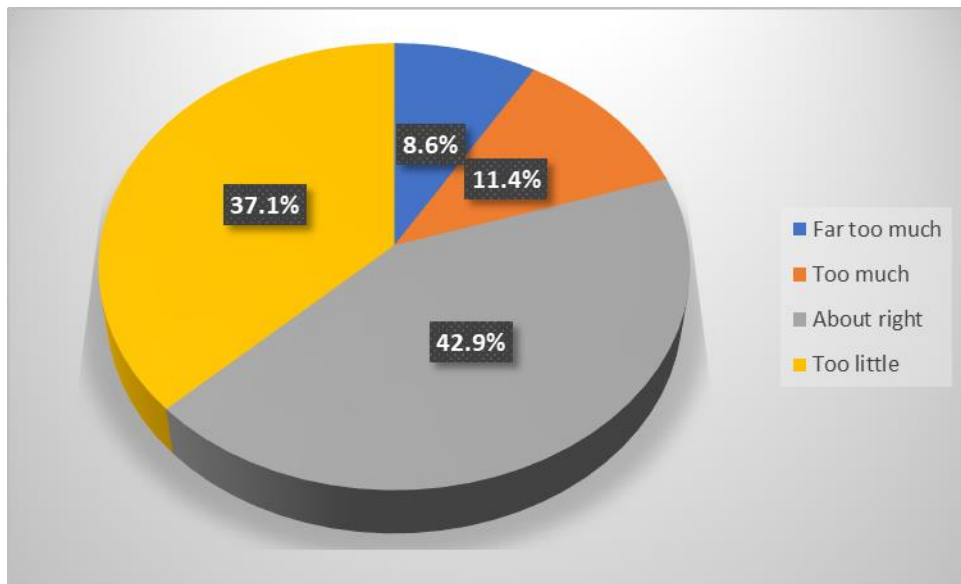
20% of the population affirmed that they did have the necessary economic stability to cope with Google Classroom expenses against 80% who said that it produced them some expenses.

Most of the population affirmed that they did not have financial stability to be able to incur in expenses that the use of Google Classroom can generate.

FINDINGS

General Question

1) **Which are the opportunities and obstacles that teachers face while carrying out the instructional process through the Google Classroom platform at Centro Escolar República de Nicaragua?**

Considering that LMS were created to provide resources for teachers to help them, it is necessary to mention that some virtual platforms can bring them some obstacles or opportunities when carrying out the instructional process. *"These platforms integrate tools and resources to manage, distribute and control content and online training activities through the Internet". (Zhang and Wang article, 2005).* According to the information gathered, some opportunities participants found were the improvement of their skills and talents to use online platforms to give continuity to their lessons when they shifted from face-to-face classes to the virtual modality because of the Covid-19 pandemic and they also learned a new way of working with online activities. On the other hand, they had some obstacles with the education modality change since some participants did not have the necessary knowledge to use virtual platforms; they also lacked economic resources to solve the expenses that Google Classroom brought them, they did not have the appropriate electronic devices or area to work as well. Another obstacle with the use of LMS was lots of expenses for some particular people, but in case of the participants in this research they considered the use of Google Classroom brought them lots of expenses. Those opinions were given because of using residential internet or acquiring a new mobile phone with more capacity were some of the necessary issues to be in touch with their students in the educational process facing the Covid-19 Pandemic and all of this caused economic impact specifically on teachers´ expenses. It is essential to take into account the necessary resources to teach classes since, working in an unknown way

and platform was something challenge for the participants, so they needed to be supported for the administration of the school to get success. The opinions gathered expressed their administration provided the resources and support that were required for teachers. That support was related to connection, electronic devices, and access to virtual student information to cope with education and Pandemic.

Specific Questions

1- Which are the opportunities that teachers faced while carrying out the instructional process through the Google Classroom platform at Centro Escolar República de Nicaragua, in Quezaltepeque, La Libertad, year 2020?

To keep innovating is essential for teachers and to be updated with new strategies of the teaching process is one of their goals. The most useful strategies participants applied were to upload videos with explanations about the topics that were included in each syllabus from the different courses that were taught, and "do live classes" which meant that teachers prepared the lessons in advance and then taught them through the Google Classroom platform as if they were in a normal classroom. Participants said that those strategies helped them to make their classes understandable for students while using digital platforms in their virtual classes during the year 2020.

2- Which are the obstacles that teachers faced while carrying out the instructional process through the Google Classroom platform at Centro Escolar República de Nicaragua, in Quezaltepeque, La Libertad, year 2020?

The use of Google Classroom brought teachers some obstacles such as: limited integrations options, many steps to follow, difficult learning sharing, editing problems and no automated quizzes and tests were available through the LMS since it was a virtual platform

subject to future updates and improvements. Another obstacle was the classroom management through Google Classroom, as for example to catch students' attention and interest. On the other hand, some teachers did not have access to mobile phones, internet and not even a computer, when these devices where needed to give them a support and help to the continuity for the planning lessons since the classes were shifted from face to face to online classes. The above mentioned was due to the cost that internet connection implied for both teachers and students, since they did not have the economic resources to get the necessary tools (electronic devices needed to continue with the learning process).

3- **Have teachers received the appropriate technological support and the necessary technological infrastructure to deal with the current online teaching process at Centro Escolar República de Nicaragua in Quezaltepeque, La Libertad, year 2020?**

During the year 2020, when all the schools closed because of the Covid-19 Pandemic the education was turned to virtual modality. Some of the participants at Centro Escolar República de Nicaragua pointed out that they received the appropriate technological support since some of them got a training on the use of Google Classroom and the apps within it, and also the free access to internet that the government offered to deal with the current online teaching-learning process.

CONCLUSIONS AND RECOMENDATIONS

CONCLUSIONS

When people have access to education, they are no longer considered a burden to society because it creates a mean of development for them. Thus, in this project, researchers have tried to find out how education would continue during the Covid-19 pandemic at Centro Escolar República de Nicaragua at Quezaltepeque, La Libertad, year 2020. Not leaving aside the opinion of those teachers who worked in this educational center as they are the major source of credibility in this study.

- Researchers conclude that teachers had the necessary skills to implement the use of LMS, specifically at that difficult time where the Covid-19 Pandemic came to change lifestyles and of course teaching styles for their school.

- Researchers conclude that most of the teachers lacked knowledge of the Google Classroom platform uses at the beginning of its implementation but, they easily learned how to work using this LMS.

- The motivation for the teachers and students played an important role in the teaching – learning - online environment, they were able to have a good communication to feel comfortable enough to be productive during their classes.

- Researchers realized that teachers who worked at Centro Escolar created a successful adequacy of contents at the moment that education was shifted from face-to face to distance modality using Google Classroom.

- One of the ways to improve education and connectivity is through trainings on the use of technology such as: electronic devices (computers, tablet, smartphones) and the use of

LMS such as Google Classroom and others, updates related to online platforms and resources to deal with the implementation of virtual classes in the present and in the near future, and finally, the availability of free internet connection to use the above online resources and avoid unnecessary expenses.

- Researchers conclude that the delivery of digital didactic material was done efficiently by the people in charge in the educational center and for the MINEDYCT as well.

- Researchers conclude that most of the participants did not have big problems using Google Classroom as an online platform to give continuity to the lessons.

- Teachers had an outstanding classroom management while teaching face to face, but while teaching through Google Classroom they faced some issues with it; they also had clear communication parameters, applying a large variety of online techniques, as well as keeping students in touch to technological tools to continue with their learning process.

- Teachers' methodology was assertive, diverse, inclusive, and integral even if they worked in online classes during the Covid-19 Pandemic, year 2020.

- Researchers have found that most participants have developed new abilities and competences to teach online which will help them for current and future classes.

- Researchers conclude that teachers who worked in Centro Escolar República de Nicaragua during the year 2020 were capable to work in the teaching field although they were facing a pandemic that made education to switch to the virtual modality.

RECOMMENDATIONS

To the teachers who work at Centro Escolar República de Nicaragua, year 2020 and for future teachers:

- It is recommended to continue doing their best in the teaching field since it has been concluded that their attitude and motivation to teach students copes with the profile of a good teacher, despite the Covid-19 Pandemic.

- It is important not only to keep the knowledge acquired with the experience in face- to face classes, but also innovating their knowledge with new online techniques and the use of LMS to enhance their performance as teachers.

- Considering that the material and resources were given rapidly and efficiently, researchers recommend continuing working with a variety of techniques which will help students in their learning process.

- It is necessary that teachers always adequate topics and materials based on students' needs.

- It is essential to continue their professional development in the teaching field to enhance their own experiences as teachers by using different LMS to improve their abilities and competences.

- It is suggested to keep growing the brave desire of motivating students for e-learning.

- Keep building up their knowledge though the use of Google Classroom will help them for a future professional life.

To public institution, Ministry of Education Science and Technology.

● It is suggested to provide free access to materials and resources, computers or technology that could be available for public institutions, teachers, and students.

● It is recommended to keep training teachers from public schools with the use of LMS.

● It is suggested to provide computers to teachers and students to have a better access to Google Classroom.

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ANNEXES

UNIVERSITY OF EL SALVADOR
SCHOOL OF ARTS AND SCIENCES
FOREIGN LANGUAGES DEPARTMENT

TOPIC: "Advantages and disadvantages that teachers face while teaching though Google Classroom Platform at Centro Escolar República de Nicaragua in Quezaltepeque, La Libertad, year 2020".

Objective: To gather information regarding the teacher's experience by using Learning Management System (LMS), Google classroom, in the teaching and learning process in the year 2020, during the Covid-19 Pandemic.

General instruction: Mark with an "X" each response for each criterion that best describes your perceptions.

By participating in this survey, you are indicating that you understand that your responses are confidential and they will be used only to gather information for the research project: Advantages and disadvantages that teachers face while teaching though Google Classroom Platform. Take your time to and choose the options that fits your answer, based on your experience. It will help researchers if you respond as many questions as you feel comfortable with.

Age   **Gender**

25-40 _____   41-50_____   51-60 _____   Male _____   Female _____

Grade you taught last year (2020):

__1°- 3°   __4°- 6°   __7°- 9°   __High School

Time you have worked at the institution

1-3 years _____   3-5 years _____   5-7 years _____   7 years or more _____

1- **How do you rate the management of the Covid-19 pandemic by the educational institution you work for?**
__Good   ___Fair   ___Poor   ____Very poor

2- I believe the staff was ready for the implementation of a LMS (Google classroom) in the teaching process.

__Strongly agree   __Agree   __Neither agree nor disagree   __Disagree   __Strongly disagree

3- Did you have previous knowledge on how to use Google Classroom and its tools properly?

__Far too much   __Too much   __About right   __Too little

4- How difficult was to deal with the use of technology to continue with the teaching-learning process?

__Far too much   __Too much   __About right   __Too little

5- How satisfied were you after you finished teaching your classes every day?

__Completely satisfied   __Very satisfied   __Moderately satisfied   __Slightly satisfied

6- How do you rate the student's acceptance and performance with the implementation of hybrid classes?

__Good   ___Fair   ___Poor   ____Very poor

7- How do you rate the support and motivation you received from the educational center and its authorities?

__Good   ___Fair   ___ Poor   ___Very poor

8- How aware do you consider the institution was about the difficulties you could have while teaching your classes?

__Far too much   __Too much   __About right   __Too little

9- How efficient was the availability and delivery of the digital didactic materials to teach your classes?

__Good   __Fair   ___Poor   ___Very poor

10- **From the list below. Which of the following items did you have access to during the implementation of online classes through Google Classroom? You can choose more than one option.**
__Computer
__Smartphone
__Tablet
__Internet connection (Wired or wi-fi access)
__Mobile data
__An adequate area free of noise
__Electricity service

11- **How important do you consider was having the tools needed to deal with the online teaching process?**
__Extremely important   __Very important   __Moderately important

12- **Do you consider appropriate to adapt the contents and didactic materials to teach trough Google Classroom?**
__Extremely proper   __Proper   __Relatively proper   __Inappropriate

13- **How do you rate the performance and efficiency of Google Classroom to teach your classes?**
__Good   ___Fair   ___Poor   ____Very poor

14- **How satisfied are you with the competences and new skills you have learned by teaching online classes?**

__Completely satisfied   __Very satisfied   __Moderately satisfied   __ Slightly satisfied

15- **According to your experience, which elements do you think could be improved to enhance the implementation of online classes in the future to ensure the efficiency and quality of the education? More than one option can be chosen.**

__ A training for new teachers on the use of Google classroom and other online tools
__The constant update to existing and new didactic materials
__A free internet connection trough Google Classroom and its tools to ensure the learning-teaching process.

16- Which is the most useful strategy you applied when working in Google Classroom during the Pandemic Covid-19, year 2020?

__ Share explanation about the topic.

__ Upload videos with explanation.

__Do "live classes".

__Upload the guides to answer them.

__Provide help through another online platform.

17- How effective were the strategies you used to work in the teaching process during the year 2020?

__Far too much   __Too much   __About right   __Too little

18- Did teachers have the appropriate technological support staff and infrastructure to deal with the online teaching process during year 2020 in the institution you work for?

__Completely satisfied   __Very satisfied   __Moderately satisfied   __Slightly satisfied

19- Did the implementation of Google Classroom required some expenses that caused an economic impact on teachers and students' families?

__Far too much   __Too much   __About right   __Too little

20- Do you consider teachers and students have the necessary economic stability to cope with the expenses needed to use the Google Classroom platform?

__Far too much   __Too much   __About right   __Too little

TEMA: "Ventajas y desventajas que los docentes enfrentan durante el proceso de enseñanza a a través de la plataforma de Google Classroom en el Centro Escolar República de Nicaragua en Quezaltepeque, La Libertad, durante el año 2020."

Objetivo: Recopilar información sobre la experiencia de los docentes mediante el uso de Sistema de gestión de aprendizajes (Google Classroom) en el proceso de enseñanza en el año 2020.

Indicaciones: Marque con una "X" la opción que mejor describa sus percepciones.

Al participar en esta encuesta, está indicando que entiende que sus respuestas son confidenciales y que solo se utilizarán para recopilar información para el proyecto de investigación: Ventajas y desventajas que los docentes enfrentan al enseñar a través de la plataforma Google Classroom. Tómese su tiempo y elija las opciones que se adapten a su respuesta, según su experiencia. Ayudará a los investigadores si usted responde tantas preguntas como se sienta cómodo.

Edad   **Género**

25-40 _____   41-50_____   51-60 _____   M _____   F _____

Grado o sección impartida el año anterior:

__1°- 3°   __4°- 6°   __7°- 9°   __Bachillerato

Tiempo que ha trabajado en la institución:

1-3 años _____   3-5 años_____   5-7 años _____   7 años o más_____

1- ¿Cómo valora la gestión de la pandemia por parte del centro educativo?
___Buena   ___ Aceptable   ___Deficiente   __Muy deficiente

2- ¿Estaba el personal docente preparado para la implementación del Sistema de gestión de aprendizajes (Google Classroom) en el proceso de enseñanza?
__Muy de acuerdo   __De acuerdo   __Neutral   __En desacuerdo   __Muy en desacuerdo

3- ¿Tenía usted conocimientos previos sobre cómo utilizar Google Classroom y sus herramientas de forma apropiada?

__Demasiado   __Mucho   __lo necesario   __Muy poco

4- ¿Qué tan difícil fue lidiar con el uso de la tecnología para continuar con el proceso de enseñanza-aprendizaje?

__Demasiado   __Mucho   __lo necesario   __Muy poco

5- ¿Qué tan satisfecho estaba después de haber terminado de impartir sus clases todos los días?

__Completamente satisfecho __Muy satisfecho   __Moderadamente satisfecho __Ligeramente satisfecho

6- ¿Cómo evalúa la aceptación y el rendimiento del estudiante con la implementación de clases híbridas?

__Buena   __ Aceptable   __Deficiente   __Muy deficiente

7- ¿Cómo valora el apoyo y la motivación que recibió del centro educativo y sus autoridades?

__Buena   __ Aceptable   __Deficiente   __Muy deficiente

8- ¿Qué tan consciente considera que estaba la institución acerca de las dificultades que podría tener durante la impartición de sus clases?

__Demasiado   __Mucho   __lo necesario   __Muy poco

9- ¿Qué tan eficiente fue la disponibilidad y entrega de los materiales didácticos para enseñar sus clases?

__Buena   __ Aceptable   __Deficiente   __Muy deficiente

10- De la lista siguiente. ¿A cuál de los siguientes elementos tuvo acceso durante la implementación de clases en línea a través de Google Classroom?

__Computadora

__Smartphone

__Tablet

__Conexión a internet

__Paquete de datos de celular

__Un área adecuada libre de ruido

__Energía eléctrica

11- ¿Qué tan importante considera que fue contar con las herramientas necesarias para lidiar con el proceso de enseñanza en línea?

__Extremadamente importante   __Muy importante   __Moderadamente importante

12- ¿Considera apropiado adaptar los contenidos y materiales didácticos para que sean impartidos a través de Google Classroom?

__Extremadamente apropiado __Apropiado __Relativamente apropiado   __Inapropiado

13- ¿Cómo evalúa el rendimiento y la eficiencia de Google Classroom para enseñar sus clases?

__Buena   __ Aceptable   __Deficiente   __Muy deficiente

14- ¿Qué tan satisfecho está con las competencias y nuevas habilidades que ha aprendido mediante la enseñanza de clases en línea?

__Completamente satisfecho   __Muy satisfecho   __Moderadamente satisfecho
__Ligeramente satisfecho

15- De acuerdo con su experiencia ¿Qué elementos cree que podrían mejorarse para mejorar la implementación de clases en línea en el futuro para garantizar la eficiencia y calidad de la educación?

__ Una capacitación para nuevos docentes sobre el uso de Google Classroom y otras
    herramientas en línea

__ La actualización constante de los materiales didácticos existentes y nuevos

__ Una conexión gratuita a Internet a través de Google Classroom y sus herramientas para garantizar el proceso de aprendizaje-enseñanza.

16- ¿Cuál es la estrategia más útil aplicada en el trabajo realizado en Google Classroom durante la Pandemia de Covid-19, año 2020?

__ Compartir explicaciones de temas de la clase.

__ Subir videos explicativos de los temas.

__Hacer clases en vivo.

__Subir las guías para responderlas.

__ Proveer ayuda a través de otra Plataforma virtual.

17- ¿Hace uso usted de estrategias efectivas para trabajar en el proceso de enseñanza durante la pandemia?

   __Demasiado   __Mucho   __lo necesario   __Muy poco

18- ¿Considera que los docentes cuentan con la ayuda tecnológica apropiada e infraestructura para llevar a cabo el proceso de enseñanza durante la pandemia Covid-19?

__Completamente satisfecho   __Muy satisfecho   __Moderadamente satisfecho
__Ligeramente satisfecho

19- ¿Considera que la implementación de Google Classroom requiere algunos gastos que provocan un impacto económico en la familia de los docentes y estudiantes?

   __Demasiado   __Mucho   __lo necesario   __Muy poco

20- ¿En su opinión, los docentes y estudiantes de la institución disponen de una cantidad necesaria de dinero para usar la Plataforma de Google Classroom?

__Demasiado   __Mucho   __lo necesario   __Muy poco