

Use of the application Zoom as a professional development tool in teaching as an encouragement for students in difficult times

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Chapter I

Introductory Framework

The purpose of this document is to present a virtual platform that is currently helping teachers and students worldwide to continue with their education. This platform has given all the necessary tools that teachers need to provide classes as normal as possible. It is important that students do not feel the difference between normal and virtual classes, since it is of utmost importance that students continue their education without being affected by the difficult times we are currently living. In this case, students need to feel encouraged by their teachers to continue with their education. Consequently, in this first chapter, the problem statement will be presented as what is the major problem that Zoom presents as a tool for teaching and how to keep the students feeling encouraged. The general and specific objectives will be based on what is considered to be the most important aspects in which Zoom can be used as a teaching tool. The justification will specify why this topic was chosen. Moreover, it will be presented some works carried out on the subject. At the end, in the scope, it will be specified what are the goals of this investigation.

1. Problem Statement

An investigation will be carried out on the virtual application Zoom. Based on the current situation with the coronavirus/COVID-19, it was necessary to research and find different options to continue with life as normal as possible. In this case, to continue providing students around the world with their education. The investigation will be based on how Zoom has been a tool for teachers to continue teaching and how it has worked for students to continue feeling encouraged in their education despite the adversities. The investigation will be accomplished through a

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research on the internet, interviews to teachers and students in order to know how this tool has worked for them, and surveys. This will help the investigation to be closer to reality. The biggest problem that teachers and students most likely face is using the application, which means that teachers do not know how to use it or that students do not feel comfortable receiving classes through a computer. This research will be carried out at the Polytechnical Center, which will help obtain the information and results needed for the investigation. The Polytechnical Center is a private institute which is using the application Zoom to receive classes and will help gather all the information that the researcher is looking for. Would receiving virtual classes using Zoom be something positive for the educational system?

1.1 Objectives of the Investigation

1.1.1 General Objective

To analyze the usage of Zoom as a virtual application used as a teaching tool to encourage students in difficult times.

1.1.2 Specific Objectives

- To investigate the use of the Zoom application tool in the educational field.
- To analyze how the Zoom application is taken by the student population concerning virtual classes.
- To compare if students rather receive virtual classes or in-person classes.

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1.2 Justification of the Study

The purpose of this study is to investigate the potential usage of Zoom Video Communication as a virtual professional development tool in teaching. Zoom is a virtual platform that was founded in 2011 with the purpose of connecting people across the world. Such application allows people to set up virtual video and audio conferences, live chats, screen-sharing, and even facilitates the work of teachers when they are giving their classes. In addition, it allows individuals to meet and work together constructively “face-to-face” when gathering in person is not possible. This makes virtual meeting to feel more human, which is essential to make users feel and stay connected with each other. One of the many qualities that this application has is that it can be used both, a computer and cell phone. Besides, it allows people to record sessions, share one another’s screen, collaborate on projects, it can be used with or without video, and much more.

As mentioned before, this application has many qualities and innovative features for example, it can help teachers deliver engaging online lessons. Teachers can record lessons and watch them again to assess students’ strengths and weaknesses. Moreover, the option that teachers have to record the lessons help the learners to watch the recorded lessons in a sequence to see their improvement over time. Another aspect that is important to mention is that teachers can use breakout rooms to group learners in pairs, trios, or in whatever size group the teacher wants. It is a way to encourage pair work or group work and allow learners to work independently. In the end, to use Zoom an account is not needed and the platform is compatible with Windows, Mac, iOS, and Android. This means that everyone can use this application without any problem.

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Education is one of the factors that most influence the improvement and progress of people. Besides, education enriches culture, values, and everything that characterizes the human beings. Parents, teachers, and even political leaders encourage education in our society. However, education has changed a lot in the last couple of decades. The usage of technology has completely transformed the learning experience and has made it more personal and interactive. Education must evolve with the new learning styles and it has tried to adapt to new technological advances that have made it possible to create new study tools and methods to make this an interactive, practical, and even a self-learning process. It has always been important, but it has become more relevant in today's world, as it is undergoing a profound transformation, such as virtual classes. In this case, the application Zoom comes to play an important role, as it is one of the platforms used to give virtual classes, video conferences, and also help companies work from home.

The value of this study is for both, teachers and students. Teachers are now using Zoom as a virtual teaching tool to teach and to encourage students to continue with their education. While the transition has not been easy, Zoom provides sufficient resources to guarantee that teachers are providing effective virtual classes. This has become an innovative way of teaching and learning for many administrators, teachers, students, and also parents. Teaching with Zoom is significantly facilitated by certain features, which help teachers to have their students focused and that they feel comfortable. This application allows teachers to insert URLs, pictures, documents, and more in the chat, which is provided by the platform and makes it feel just as if the students were actually in the classroom.

In addition, if teachers have their material in PowerPoint, they can share the screen and every student can see it in real-time, while it is explained just as if you were in the classroom

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with the teachers. Virtual classes have many benefits, for example, timesaving, as it helps students to have more time to study instead of traveling to the study center. Moreover, this helps to a lot of students that live far away and have to even walk to the study center and students also have the flexibility to choose the learning environment that works best for them, which means their bedroom or even the living room, among other benefits. Therefore, students find the encouragement to continue with their education regardless of the obstacles that life presents.

The impact and advantages of technology on the lives of the people, cannot be ignored. The 21st century has been called the era of science and technology, especially with all the new developments and advancements over the last few decades. Technology's advantages over the years have been very useful for the lives of people, for example, ease to access information, saves time, better communication, among others. This has been an innovation that improved people's lives for the better and it is something that people need to take advantage of it. Technology offers a tool in which classes can be offered without being interrupted by the current pandemic. The worldwide crisis brought by the COVID-19 virus has caused rapid and dramatic changes to the world, as companies had to implement new strategies, like working from home. This has not been the exception for the world of teaching. With no training or prior preparation, teachers have been forced to adjust their skills to start working on online live virtual classes. Schools around the world have faced the challenge and whether or not the teachers and students were ready, a new way of learning has begun. With virtual applications such as Zoom, teachers and parents can rest assured that their children can continue with their education without any problem. Video communications allow educational institutions to expand their impact across the country to reach more students and offer new learning opportunities.

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1.3 Antecedents

This investigation is focused on Zoom, a virtual application that was founded in 2011 and how it has helped teachers worldwide. Nevertheless, there is not sufficient information regarding other thesis projects that have investigated this application. The little information that can be found, states the following. In the research article titled *Embracing the Chaotic side of Zoom* by Naomi Fry (2020), it is stated that the coronavirus pandemic made a rapid and implacable advance across the world, and it forced schools, workplaces, and any type of collective real-world activity disappeared and that a new era had begun. Zoom became not only professional support, but also a way of life. Everyone around the world was able to see one another on Zoom, at college lectures, in elementary-school P.E. classes, and among others. It is essential to mention the importance that the application Zoom has come to play to help people work, study, or even see their family members. This is a tool that will be very convenient to use for the future of education and to continue encouraging students.

Veronica S. Pantelidis on her project *Reasons to Use Virtual Reality in Education and Training Courses and a Model to Determine When to Use Virtual Reality* (1995) states that several studies have been done about applications and effectiveness of virtual reality in education and training since around the 1980s. Studies additionally showed that a virtual environment can “stimulate learning and comprehension because it provides a tight coupling between symbolic and experiential information” (Bowman, Hodges, Allison, & Wineman, 1998). One major advantage of using virtual reality to teach objectives is that it is highly motivating. An investigation by Mikropoulos, Chalkidis, Katsikis, and Emvalotis (1998) on the attitude of education students towards virtual reality as a tool in the educational process and towards virtual

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learning environments on specific disciplines, found that students had a favorable attitude towards virtual reality in the educational process. A model developed by Salzman, Dede, Loftin, and Chen (1999) described how virtual reality aids complex conceptual learning, and how virtual reality-features and other factors, shape the learning process and learning outcomes. For many years the use of virtual reality in education has been a process seeking to encourage students.

The project *The benefits of Using Virtual Reality in Education* by Mustafa Hussein and Carl Nätterdal (2015) refers that in the world of education, new technologies are being used to improve the process of learning. One essential aspect that was considered in this project is how education and virtual reality has been discussed for a long time, but one of the main challenges that were faced was how unaffordable it was for educational institutions. Nevertheless, as time passed, technology and virtual applications are up to date, cheaper, and more accessible to people. As technology advances, new technologies emerge and new ways of learning are being introduced to students. Based on this project, most of the students chose virtual reality to be the most effective platform, as they suggested that the virtual platform is more suited for fast learning. Since the beginning, research on virtual reality has stated that students required all the encouragement from the teachers and others to understand the benefits of using virtual reality in education and understand how the world of education is developing.

The Effects of Technology on Student Motivation and Engagement in Classroom-Based Learning by James Francis (2017) explains that today's generation of students has grown up with technology all around. Francis also states the importance of meeting the needs of students in the 21st century, meaning that a modern teacher must take into consideration student's motivation to learn and the effects technology has on an inclusionary education. The students of today are now surrounded by technology, as they access to a vast collection of information is only a fingertip

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away (Egbert, 2009). Most of the staff of the pedagogy field state that technology integration is necessary and helpful for a school to function correctly; even though, some teachers are reluctant to make changes and students are not motivated to try the integration of the technology. Teachers are helping on how to encourage students to continue with their education using virtual platforms.

Teaching and Learning in Virtual Mode from the Experience of Graduate Students and Teachers by Salgado Garcia, Edgar (2016) from the Universidad Católica de Costa Rica, mentions that students presented a satisfactory level of gratification with the virtual or online courses. The professors of this institution also showed an optimistic attitude towards teaching online; however, they did mention the need for more training for teachers in the institution. The education by distance through the use of new information and communication technologies has been considered as an alternative practicable to increase access to formal, basic, and university education, as well as lifelong education, especially in developing countries. Prieto Castillo and Van de Pol (2006) point out that there are two great “paradigms” or approaches to virtual learning: one of them focuses on technologies, emphasizing the available tools, and that tends to see learning as the result from the use of such technologies; while the other focuses on the pedagogical, on the dialogical experience among the actors in the learning process. Teaching virtually is now a reality and it is necessary to provide support and encouragement to students to continue with their studies.

1.4 Scope

This investigation aims to analyze how teachers and students adapt to using the application Zoom. This application has been now available for several years, but not with the

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purpose of teaching classes, as it is being used nowadays. In addition, it is essential to analyze how to keep the students encouraged to continue with their education despite any adversity. In difficult times, as the currently lived, is when students need support; therefore, the information to conduct the investigation will be taken from the internet, as it will be investigated how Zoom, as a teaching tool, has help teachers and students. To achieve all the goals in this investigation, interviews will be done to consider the opinion of students, as well as surveys to know if Zoom was used before for educational purposes or not. Moreover, a comparative analysis will be made with the results to know what works better for students if receiving virtual classes or going to the classroom.

The application Zoom came to change modalities and to be something positive. It should be noted that receiving online classes may be beneficial. Teachers have to have different activities and keep the students focused and not lose track of the material received. As the world is currently living a tough situation with the Coronavirus/COVID-19 pandemic, Zoom became a helpful tool not only to keep in touch with family members or for work purposes, but it has been a great help for teachers and students to continue with their education. When moments like the present are lived, it is when people realize how necessary these types of tools are because if it had not been for this platform, the world would have stopped, even more.

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Chapter II

Theoretical Framework

This chapter refers to the previous studies and the theories made on how the application Zoom is used as a development tool in teaching and encouragement for students in difficult times. Besides, the theories will show the way in which the application has helped engaging students and, in a positive way, the teaching-learning process. In addition, it will include information on strategies for remote teaching and learning, engaging students through Zoom, and pedagogical considerations for teaching with Zoom, as all of these are important elements when applied in classes.

2.1 Literature Review

Student engagement can be difficult to navigate through a screen during a Zoom lesson. It is fundamental to find ways to keep the students engaged during the lessons. Zoom has many instruments that can be used in order to help teachers achieve this; for example, if teachers want to encourage students' involvement and solicit their opinions by making polls, or if they want their students to work in groups or in pairs using the breakout rooms, it is just perfect. Moreover, a topic that often worries teachers is the students' engagement during the Zoom class meetings, so they want to know if their students are paying attention or are engaged on the class session. It is an intangible, but vital part to create an online learning environment and building trust with the students. Helping students to engage with the class material and the instructor, is essential to create an effective online learning environment. Students who are engaged find learning more enjoyable and demonstrate greater responsibility to themselves and to their classmates.

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2.2 A New Pedagogy is Emerging

According to UNESCO (2020), more than one and a half billion students around the world were engaged in remote learning at the height of the pandemic back in March 2020. While some students had access to the internet, others did not have this opportunity. Most of the students around the world had the opportunity to have smartphones, tablets, laptops, or desktops, which were used as learning devices. Some of the teachers had no previous experience in teaching online or at a distance, but were able to discover new methods to teaching and learning and use their imagination to overcome every challenge this current reality gives.

Many tried to replicate online what they would normally do in their classroom with their students, but soon they discovered that this strategy was not effective. Moreover, many of the students had challenges; for example, they could not access synchronous classes, the cost of internet being too high and exceeding their ability to pay or were even in different time zones. The institutions had to seek for help from other collaborators who had previous experience in teaching online. Most of the teachers were inspired by creative arts and music, in which they used Zoom for rehearsals and performances produced outstanding and life-changing events. Most of the teachers were able to find games, videos, materials, and resources to find distinctive ways of engaging their online learners. What is clear is that COVID-19 made educators change and find new ways of teaching, all of this thanks to technology. It can also be said that many institutions developed new programs and courses to give beyond the pandemic.

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2.2.1 How this New Pedagogy is Transforming Teaching and Learning

Educational institutions and teachers are rethinking pedagogy and designing resources, programs, and courses that benefit from new approaches to teaching and learning. As teachers became more familiar with technology for teaching and learning, more pedagogical responses and schemes start emerging. There are several developments on how this is structured.

Blended Learning: In this case, the teacher can record a lecture, provide access to readings, videos or other resources that can help students prior to coming to class. The time in classroom is more of interaction between teacher and students, and they can have discussions in subjects they have issues with, problem-solving, do practices or lab work (2020). All of these mentioned before cannot be done in virtual classes as it is more difficult to implement. A successful blended teaching and learning require a focus from the teacher on what may be best to be done on campus and what can be done online without that interaction between teacher and student.

Collaborative Approaches to the Construction of Knowledge and Building

Communities of Inquiry & Practice: Using synchronous learning has helped a lot of students in countless Universities around the world, for example the University of Ontario Institute of Technology. Synchronous learning helps the students acquire, share, and create knowledge. The facilitator provides the information, leadership, and structure, which allows the students to build their acquaintance and skills, but at the same time they are not being dominant presence in class (2020).

Use of Multimedia and Open Educational Resources: Several colleges are using this new way of learning. An example is the Seneca College in Ontario, where the social media tools

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are used in courses in the School of Marketing, not only to share content and insights, but also to increase the students' engagement, obligation for learning, and abilities for independent and interdependent learning (2020).

Increased Student Control, Choice, And Independence: Courses are being offered in a variation of combinations which include face-to-face classes, synchronous and asynchronous classes, and giving students online access to resources and support, in order for students to choose the mode and timing that best suits their situations (2020).

2.3 How to Succeed in Online Classes During the COVID-19 Pandemic

The spread of the coronavirus is something we cannot deal with, but what people can take control is of their learning and keep up with their classes and education. Colleges and universities everywhere in the world shut down their facilities and changed the in-person classes to virtual classes. However, this certainly is not the first time a pandemic forced distance learning upon unprepared students. Back in 1665, the Great Plague of London forced Isaac Newton and his classmates out of Trinity College for a year. Newton while at home used his time to develop his early work on calculus and making his famous gravity observations (2020). There are six things you can do to prosper in switching to virtual learning.

Stay Disciplined: Even if the house does not look like the college or a classroom, students have to know that this place is temporarily their classroom and even if there are distractions, students must stay focused and on track. In order to concentrate on the schoolwork, students have to set aside a workspace and create a study schedule, just as if they were in normal classes. One way to stay positive and disciplined is to put the phone way or far away, where it would be hard to reach in order to prevent checking on social media or messages every 5 minutes. John

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Kirk (2020), an associate professor at Carthage College in Kenosha, WI, says that an alternative way to keep concentrated is to use a calendar app to schedule blocks of time in your day for class, studying, etc. “Google Calendar works well, as I’m sure others do,” he states.

Be Flexible: Classes are now being lectures, videos, or series of readings. The library or resources are still available, but they are now digital and office hours are now virtual. Being flexible about these changes will help people to adjust. It is also important to have backup plans in case the person loses his internet connection. Therefore, downloading the course materials is a good backup plan to access them offline and to work on them without any issues. Another important aspect to take into consideration is that it is vital for students and teachers to have their e-mail address as a way of communication. Glen Briand, a professor of chemistry at Mount Allison University in New Brunswick, Canada, agrees and says that “As many have been or will be in transit, there have been many requests for deadline extensions on assignments and take-home exams. Students should contact their professors or university student services if they are having trouble keeping up with their work or meeting deadlines” (2020).

Manage Your Time Wisely: Face-to-face classes have the benefit that you can rely on them to assess where you should be in the curriculum and also remember when exams or deadlines are due. With the new circumstances, you most likely need to set up own reminders in order to keep up with everything. One way of keeping up with all the important deadlines for exams or assignments is to log in to the classes every day, in which students can confirm the dates. Another option that can help to keep up is to check the e-mail frequently, so students will not miss any information about their classes or assignments. Once the students know what is going on, it is essential to have everything very well organized and to make a plan in order to complete their work.

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Students who rather structure can develop a written schedule in where they will know when they need to be available online for virtual classes or when they need to work on either projects or assignments. “You may now have more control of your time, so think about when you work and learn best and try to capitalize on that,” says Carroll (2020). “Some people work best in the morning while others hit their stride at night. Regardless, keep yourself accountable of start times so you can create some momentum and then keep it going.” In addition, it is necessary to consider the difference in the amount of time you have to devote to online learning. “All activities take much longer than usual,” warns Peter Seidl (2020), professor of chemistry at Federal University in Rio Janeiro, Brazil. “But don’t let this discourage you!”

Cut Everybody A Little Slack: Keep the patience when things do not go as plan. The majority of the professors are improvising just as much as the students. The professors usually spend months or even years developing new courses, but with this situation they were given only days to move their presence classes to courses online; meaning, all of this is brand new for them, too. Keep in mind that professors are doing their best when you think their materials are not good enough, are tough to access, or even that they do not know how to use an application such as Zoom. “We know this is a hectic time and there’s a lot going on around us, and we really want students to succeed,” says Carroll (2020). “Everyone is worried about their families and friends and no one knows when this will end. Use your schoolwork as a way to take your mind off the chaos and direct it towards something productive.”

Just like any method of learning, long distance education is not easy as others might think, or it does not fit everyone. It is fine if students find themselves struggling with the online courses, it is important to keep trying new things until you find what works best for you. Parents might think or feel that since students are home that they are on a break and even might ask the

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students to help them with tasks around the house or even just want to talk. Let the people around you know that you need time to get work done. “Letting someone know when the door is closed you may be on a Zoom call, in class, working on an assignment, or taking an exam can keep them from disturbing you,” says Carroll (2020). “Opening a line of communication can be helpful for them to understand so you can have the time and space you need to be productive and successful.”

Be Kind to Yourself: One of the most complicated things that the online courses have brought is the fact that students and professors are spending the day hunched over the computer, which is rough on the body and the brain. It is important to take breaks throughout the day, standing up, stretching, or even taking a coffee break, but most important to not forget to drink water!

Keep in Touch: Connecting with people matters for everyone, while being in the institutions opportunities to ask questions, join study groups or chat with friends were just a short walk away. All of these activities help the students to keep up with the course and to keep in touch with others. While being on virtual classes, students need to make an effort to actually stay connected with others, so it is essential that students reach out to their professor with questions or any doubts they might have and to keep in touch with their peers via text messages or even social media. The communication between peers is actually very helpful in order to keep up with all of the assignments or questions they could have of the courses. “Discussion boards are great for crowd-sourcing answers to questions many other students are having,” says Kirk (2020). “Faculty are pleased to see when one student asks a questions and it is answered by another student. This is true for both class material and for general *how-to* questions.” Students need to know that they are not alone on this journey. Keeping close and regular contact with peers,

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professors, friends, and family is a technique to stay motivated and engaged. “While so much is outside of your control right now, taking advantage of ways to virtually engage with school, such as using digital tools and reaching out for help, is a small measure of control that can help in an uncertain world.” Says Boucher (2020).

2.4 Strategies for Remote Teaching and Learning

It is important that teachers make plans for remote teaching and learning focusing on instructional objectives and the tasks that you are trying to accomplish with the students.

Deliver Lectures: Zoom can be used for live lectures, and it is recommended as a great video conferencing platform and to conduct live class meetings. It is essential to embrace frequent Zoom sessions at the regular scheduled class time to preserve a sense of connection for teachers and students. While if teachers want to record their lectures, Zoom can be used as a tool to record videos of themselves giving a lecture or only their voice can be recorded while presenting on the computer.

Communicate with Students: Preserving the communication with the students is vital during any future modifications of the classes, whether a planned absence of part of the teacher or because a situation that will impact all or part of the campus. It is important to keep students aware of changes in schedules, procedures, or even assignments.

Facilitate Discussions: While it is easy to give a PowerPoint presentation lecture in Zoom, it is also very easy to use this application to have students engaged in a classroom debate, analyze real-life cases, participate in pair activities, and much more. Zoom has features that can help with engagement activities such as breakout rooms, whiteboard, screen sharing, non-verbal

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feedback. All of these mentioned before help students feel more comfortable while doing activities.

Pre and Post Live Lecture Engagement: Nurturing communication among students is significant because it allows them to reproduce any collaboration built into the course and it conserves a sense of community that can help maintaining students motivated to participate and learn. Using the discussion boards to replicate conversation that would take place in the traditional classroom, is a way to keep the students engaged.

2.5 Engaging Students Through Zoom

Remote class sessions can be seemed like one extensive educational video to students and be extremely boring to them. Although various studies have shown that video can serve as a highly effective educational tool (Brame, 2016), using video is not inherently effective. Studies have shown that attention to educational video can drop to 50% after 9-12 minutes of instruction (Guo et al., 2014). Zoom has a menu of tools which can help to keep students engaged in their online courses or activities. Each tool can provide clarity for learning and to highlight the relevance of course content. Teachers will need to prioritize approaches that will help students practice and achieve the learning intended.

Zoom Chat: This chat is considered to make easy to leverage for both planned and spontaneous activities. Teachers can consider using this chat for the following reasons:

- Pose discussion questions and review an array of student responses.
- Solicit questions from students.
- Ask for feedback on course content or more broadly about the online learning experience, at the start, during, or at the end of class.

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- Provide an alternative for short in-class writing reflections.

Zoom Nonverbal Feedback: The nonverbal feedback includes a variety of icons that is next to the name of the students in the participants tab. These icons are established by thumbs up or down, yes or no, go slower or faster or need a break. This feature can provide a quick in the moment feedback from the students and without interrupting the class. The nonverbal feedback can be considered for the following (2020):

- To collect answers to yes or no questions related to the course content or even when making a group decision.
- Generate responses to clarify confusion.
- To check in with the students as individuals in the online context, and to know how they are feeling or doing on any given day. (example, thumbs up or thumbs down feature can be used).

Zoom Screen Share: Screen sharing gives the teachers the opportunity to share their screen with the students. A PowerPoint presentation or any other content that the teacher would like to share can be seen by the students. If another teacher is also giving the class they can share their screen while they lead their portion of the class. Most importantly, students are also able to share their screen with the rest of their classmates and teachers, so it is important to provide the opportunity to everyone.

Zoom Breakout Rooms: This feature provides the opportunity to divide the students into smaller groups, meaning they can be separated into groups or even pairs. When dividing the groups, the teachers have the opportunity to decide who they want in each group or they can let

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the application separate the students randomly. Each breakout room includes the same features as the typical Zoom room. It is necessary to take into consideration the following:

- Divide students into smaller discussion groups.
- Spur conversation when large group discussion is quiet, by giving students a chance to process a question.
- Provide a synchronous workspace during class for collaborative problems and projects.

2.6 Pedagogical Considerations for Teaching with Zoom

The application Zoom is a tool that allows teachers to implement most of the methods used in a normal classroom. Zoom allows teachers to switch back and forth among different types of teaching techniques; for example, lecture, small group discussions, group, or pair activities, and much more (2021). It is important that teachers consider what teaching methods they are using in order to see if Zoom can facilitate those same methods or similar ones in an online class. Teachers who like to use PowerPoint in their classes need to know about some techniques that could help them while giving their lesson. Having the functionality of sharing the screen or slides in this case, is great because students are able to keep up while the teacher narrates to them. Something that needs to be taken into consideration while lecturing the students is to take breaks to ensure that the students are keeping up and to provide opportunities for active learning.

Zoom also has icons which can be used by the students to speak or say something to the teacher without actually interrupting their lecture. For example, the speed up or slow down icon, this can be used to indicate whether they are following along with the lecture. Another instrument that Zoom provides the teachers with is being able to use small group or paired

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discussions by using the breakout rooms. This feature actually facilitates many things for teachers in which they are able to selectively assign the group or pair together or randomly assign them to the breakout rooms. In addition, the host or, in this case, the teachers are able to circulate among each breakout room to randomly check-in with the students, but also the students are able to ask for help from their teacher when they need it. In order for this technique to work is important to make the work group small effective, which means to provide students with a specific task and clear instructions.

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Chapter III

Methodological Framework

In this chapter, the three different types of research approaches will be explained in a very detailed way to know which one to use when performing an investigation. The research design will be clarified to know which one is the best one to use. The three information sources- primary, secondary, and tertiary- will be described for the reader to know what sources belong to each one. The analysis category and the data collection instruments will be described in detail, and ultimately, the collection data process and data analysis will be justified.

3.1 Research Approach

There are three distinctive types of research approaches: qualitative, quantitative, and mixed, which is a mix of the two mentioned before. The quantitative method, which has its origin based on the scientific method, relies on statistical procedures for data analysis. In contrast, the qualitative methods rely on the descriptive narrative for data analysis (Berrios & Lucca, 2006). In this section of the methodological framework, they will be discussed, described, and additionally, their characteristics will be mentioned.

Qualitative researches vary based on the method used as there are various designs like, interviews (which can be face-to-face or on the telephone), participant observations, and focus groups. These are examples of methodologies that can be used in qualitative researches. The main reason to do an investigation qualitative is to obtain a very detailed understanding of any topic, issue, or meaning based on the first-hand experience (DJS, 2020). Therefore, the qualitative research methods permit in-depth and to continue investigating and questioning of respondents based on their response, where the interviewer or researcher also tries to understand

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their feelings and motivation. This is achieved by obtaining a small but focused sample base because it takes a lot of time to collect the data. The qualitative data is concerned with profundity as opposed to the number of findings. A design of qualitative research fills with establishing the answers to the why's and how's of the phenomenon in question. The main objective of the qualitative is to provide precise knowledge about the different qualitative methodologies and the meaning of the terms. It can be said that the design of the qualitative is the most flexible of the various experimental techniques, encompassing a variety of accepted methods and structures. Berrios and Lucca (2006) claimed that qualitative methods provide for a "better understanding of human development."

Quantitative researches rely on the collection and analysis of numerical data to describe, explain, predict, or control variables and phenomena of interest (Gay, Mills, & Airasian, 2009). When working on a quantitative research, data is collected through click streams, audits, and surveys on paper, on the phone, or even online. By sending surveys, compare relationships between one item over the other, making graphs from data obtained, or using yes or no answers (questionnaire sent out with closed questions), information is obtained and it can be put on a graph like mentioned before. The quantitative researches prototypes are elaborate, objective, and also investigational. The results obtained from these types of researches are analytical, numerical, and unbiased (2020). This type of research design is an excellent way of concluding results and proving or disproving a hypothesis. It is a structure that has been around for centuries; therefore, it is standard in many scientific fields and disciplines.

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Creswell and Clark (2007) defined the mixed method research as follows,

Mixed method research is a research design with philosophical assumptions as well as methods of inquiry. As a methodology, it involves philosophical assumptions that guide the direction of the collection and analysis of data and the mixture of qualitative and quantitative approaches in many phases in the research process. As a method, it focuses on collecting, analyzing, and mixing both quantitative and qualitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach alone.

When doing a mixed investigation, the qualitative and quantitative methods are going to be used. Mixed method designs give researchers, in every discipline, a rigorous focus to answer research questions. To design a mixed investigation, the researchers must consider carefully and understand each one of the dimensions of mixed methods design and always keep an eye on the issue of validity. The general objective of the mixed method of combining qualitative and quantitative research components is to expand and strengthen the conclusions. In all the studies, the use of mixed methods should answer the question of the research.

3.2 Research Design

The research design suggests the approach that the person chooses to integrate the different components of the study coherently and logically, and ensures that the problem of the investigation is addressed effectively. This constitutes the model for the collection, measurement, and analysis of data. In this section of the investigation, two designs are going to be discussed,

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the action research and the descriptive research. According to Gilmore, Krantz, and Ramirez (as cited in Fall, 1986)

Action research...aims to contribute both to the practical concerns of people in an immediate problematic situation and to further the goals of social science simultaneously. Thus, there is a dual commitment in action research to study a system and concurrently to collaborate with members of the system in changing it in what is together regarded as a desirable direction. Accomplishing this twin goal requires the active collaboration of researcher and client, and thus it stresses the importance of co-learning as a primary aspect of the research process.

The action research is a process in which participants examine their own educational practice systematically and carefully, using the techniques of research. Although, there are many types of research that may be undertaken, the action research specifically refers to a disciplined inquiry done by a teacher with the intent to inform and change his or her practices in the future. In schools, the action research refers to a wide variety of methods of investigation, like evaluative and analytical designed to diagnose problems or weaknesses, whether organizational, academic, or instructional, and also to help educators develop solutions to address them quickly and efficiently. The action research also can be applied to programs or educational techniques that are not necessarily experiencing any problems, but that educators can learn more and improve. Elements of action research that studies include to identify the problem, research the problem and its probable causes, develop a response to the problem, implement the proposed solution, and reflect on the results.

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The descriptive research is “aimed at casting light on current issues or problems through a process of data collection that enables them to describe the situation more completely than was possible without employing this method” (Fox, W. & Bayat, M.S, 2007). It is a method that explains the characteristics of a population, situation, or any topics that are being studied. This method focuses on the answers of the how, what, when, and where questions if a research problem and it does not focus a lot on the why. This because it is more important to know and have an appropriate understanding of what a research problem is before investigating why. There are different types of descriptive researches; for example, descriptive survey, descriptive-normative survey, descriptive status, descriptive analysis, descriptive classification, and descriptive comparative. All the stated before are distinctive types that can be used for different cases depending on the kind of approach that will be used in the descriptive research. There are some unique characteristics of the descriptive research which are quantitative research, uncontrolled variables, cross-sectional studies, and basis for further research. A disadvantage that affects the descriptive research is that the respondents might not want to answer at all or even give incorrect responses if they feel that the questions are too personal (2020). Therefore, this might affect the investigation and give wrong information to the readers. However, it also has an advantage, as it explores the problems of the investigation in-depth, giving a full detailed description of the topic.

3.3 Information Sources

The information sources can come from anywhere – media, blogs, books, journals, magazines, and others. Credible sources must be reliable means that provide information that one can believe to be true. There are many factors that make a source credible, for example the

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source's authority, accuracy, objectivity, currency, and coverage. These sources are divided into three main categories primary, secondary, and tertiary. It is important to know the difference between these types and understand each one of them. In addition, it is essential to know which type of source to use for the coursework before searching for information.

3.3.1 Primary sources

They contain first-hand information, since are original materials. These sources are records of events or evidence as they are first described or happened without any interpretation. They are as close as the original event or phenomenon as much as possible, meaning that what is being read is from the author's account on a specific topic or event that she/he participated in (2021). The primary sources report on discoveries or share new information. Books, speeches, letters, reports, and others are some examples of what primary sources are. For the virtual application Zoom, as it is a topic that is very recent and there are not any books about this application yet, so reports will be used as primary source of information.

3.3.2 Secondary sources

They describe, summarize, or discuss the information presented in another source, most of the time in primary sources. Secondary sources offer an analysis or restatement of primary sources. Moreover, secondary sources interpret, analyze, or summarize. They are often written significantly after events by parties not directly involved, but who have special expertise, and they may provide historical context or critical perspectives (2021). This means that the author, in most cases, did not participate in the event. The use of secondary sources can be found in publications such as magazines, textbooks, book reviews, among others. To find information about Zoom, magazines will be used.

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3.3.3 Tertiary sources

They are used to organize and locate primary and secondary sources. Tertiary sources often offer a summary of a topic, event, or condition and include primary and secondary sources (2021). Indexes that guide users to specific locations within a book or source are also considered tertiary. Dictionaries, guidebooks, manuals, almanacs are tertiary sources. Moreover, some reference materials and textbooks are considered tertiary sources when their chief purpose is to list, summarize, or simply repackage ideas or other information. The tertiary sources are usually not credited to a particular author. Finally, guidebooks will be used as the tertiary source to help in the investigation of the application Zoom.

3.4 Analysis Categories

The investigation is about an application called Zoom as a tool to teach classes in difficult times, therefore, students will not delay with their education and still be encouraged to continue with their education.

3.5 Data collection Instruments

Below the instruments that will be used in this investigation will be discussed and explained.

3.5.1 Survey

This is a method to gather information from people. Moreover, this works great with a large population. The surveys provide a critical source of data and information for almost all the people engaged in the economy, businesses, media, government, and academics. There are methods to collect this information and these are face-to-face, over the telephone, over the

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computer, among others (2018). In addition, there are some important aspects to take into consideration to have a good survey like defining the research question, identifying who will surveying, designing, and pre-testing before the actual survey is sent out. There are some advantages of doing a survey; for example, it is easy and quick to analyze, the precision is high, and respondents are usually honest when answering, all of these components help when collecting the analysis of data (2016). In this case, the survey will be done to professors and any member in the educational field of the school. The survey will gather the information to know if professors knew about the virtual application Zoom and for what purposes was Zoom used, in case they used it before. The information gathered from the survey will help to know if professors were qualified and trained to give classes to the students, since it is of utmost importance to know how much they knew about how to work this application to provide classes normally.

3.5.2 Interviews

These are formal meetings between two people, where the interviewer asks questions to the other person to obtain information. To have a satisfactory interview, it is necessary to plan and prepare the questions before the actual interview. There are different types of interviews and they can be either over the telephone, video conference, structured, unstructured, or face-to-face. However, it is most likely that the interviews are done face-to-face because of the interaction between the interviewer and interviewee. These interviews are a good option to collect in-depth information on people's opinions, thoughts, feelings, and experiences (2015).

There are different types of interviews. For example, in structured interviews the interviewer asks a set of standard questions about particular topics; in the semi-structured interviews the interviewer has a set of predetermined questions and the interviewee can respond

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in their own words; and the unstructured interviews where the interviewer has no guidelines, restrictions, among others. In this case, the interviews will be done to the students of the institution to know their thoughts about the virtual application Zoom, if they have used it before to receive classes, or not among other questions, to know their thoughts about the application. These questions will work for the investigation to gather the information needed about Zoom.

3.5.3 Comparative Chart

These charts are used to make a comparison between two or more objects, phenomena, or data information (2020). These charts can help to obtain either qualitative or quantitative information. Also, they are very useful to perceive what are the advantages, disadvantages, prices, and others. The chart will be done in the investigation to compare if students like to receive classes virtually or if they feel that is not the same and need to be in the actual class.

3.6 Collection data process and data analysis

The instruments that will be used for this investigation are surveys, interviews, and a comparative chart. It will be explained how the data will be collected and how it will be analyzed.

In the surveys, the data will be collected by the answers given by the people that took the survey. For this investigation, the data will be collected from the professors at the school to find out how much they knew about the virtual application Zoom. Each survey will be checked by the researcher to make sure that it was done correctly and that the information that is going to be on the investigation is correct for future readers. Moreover, in the case of the interviews, the data will be collected from the students. The researcher will be in charge of formulating the questions and making the interviews with different students of the school. To keep track of every answer

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the researcher will record each answer of the students, as it is a way to have everything organized.

As for the comparative chart, it will be made by the researcher with data collected from the students answers, whether they rather have virtual or presence classes as some students might feel that is not the same. In the end, each chart will be checked, evaluated, and compared in a very detailed way by the researcher to give the readers the correct data from each student. The collection of data of each instrument must be made appropriately to give the readers a worthy investigation; consequently, the analysis of each is just as important as the collection of data. The information that will be provided to the reader needs to be from a reliable source, coherent, and attached to the reality that is being lived at the moment.

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Chapter IV

Data Analysis

The purpose of the data analysis is to obtain valuable information from the instruments applied. It has multiple components and approaches, encompassing diverse techniques under a variety of names, and it is used in different businesses, and social science domains. The procedure helps decreasing the risks inherent in decision making by providing useful insights and statistics, often presented in charts, images, tables, and figures.

4.1 Analysis and Interpretation of the Results

In this section of the investigation, the results collected through the different instruments applied during the experimental phase will be evaluated. With this analysis, all the data collected from the instruments will help to reach the conclusions of the research. Authentic evidence will be used, since it was done with real life evidence in order to prove the information stated in previous chapters. All the statistics gathered from each instrument will be mentioned and analyzed to provide clear information. After analyzing the results, accurate conclusions can be obtained and recommendations to do better in future related research, can be given.

4.1.1 Survey

By applying this survey to the teachers, the investigator was able to know how much the teachers knew about the application Zoom before they essentially started using it as a teaching tool. It is important to keep in mind that most of the teachers did not know how to use the application or even heard of it before. This affected a significant number of teachers around the world because they did not know how to use the tool that was going to be considered as a way to give classes and keep communication with the students. The usage of the application was easier

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for some teachers than for others. In this case, two teachers completed the survey, as they were the only ones available at the moment, since classes are not fully in-face. However, their answers are important to the investigation. After observing the class that one of the teachers gave through Zoom, the investigator had an idea of how much the teacher knew about the application. The teacher did have a great class management, since even though the classes were virtually, the teacher had a great powerpoint presentation and used various videos to explain the class and kept the students focused on what it was being explained.

The following is the survey with the questions and their corresponding answers. First, as follows is the survey that the teachers received. Therefore, the following step will be to analyze the answers provided by the two teachers who participated in this short survey. They will be cataloged as teacher A and teacher B for a better understanding of the readers.

Have you heard of the application Zoom?

Teacher A: “Yes, I use it for my personal needs.”

Teacher B: “Yes, but never used it before for anything, but I have heard it’s a good application.”

Have you used Zoom as a teaching tool before?

Teacher A: “No, never.”

Teacher B: “No.”

Do you think the application has all the instruments needed in order to provide a class?

Teacher A: “Yes, totally but some of the teachers do not know how to use those things.”

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Teacher B: “I think it is very difficult to provide classes through a computer but now it has to be done that way and Zoom works.”

Do you think giving classes through an application is the same as giving normal classes?

Teacher A: “Not really but it can work.”

Teacher B: “Those students who want to learn will learn no matter what the circumstance.”

Would you keep using Zoom to give classes?

Teacher A: “Now that I have used it to give classes I can work with it.”

Teacher B: “Yes, for the moment it has been alright, but I do think teachers need to know how to use it more.”

The answers offered by the teachers were greatly beneficial, as they gave the investigator an idea on how much they knew about the application, how they felt while using it, and if they thought that it could be used to teach online. With this survey, the investigator learned that it is vital for teachers to know or at least, to have heard of the application, as otherwise it would complicate things more. The two teachers that participated were not sure on how much they liked the idea of giving the classes online, but they were sure they wanted to learn how to use the application in order to give the students worthy classes. They truthfully agreed was not all of the teachers knew how to use the application.

4.1.2 Interview

The purpose of the interview was to investigate how much students enjoyed having virtual classes rather than regular classes. It was essential to know what students think about receiving classes through an application like Zoom, since this could be considered a new way of

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receiving classes from now on. Moreover, it was important to know what the students think in order to make adjustments if necessary, to help them get worthy lessons. In this case, five students were interviewed for the investigation. Throughout the answers provided by the students, it was demonstrated that even if they were not so certain about receiving classes through an application, the students did agree that they were still able to learn. The following is the interview that the students received.

Interview for the students at the Polytechnical Center

1. What do you think about virtual classes?
2. Do you rather virtual or normal classes?
3. Do you think it has affected you in a bad way?
4. Do you recommend other students to receive virtual classes?
5. Are you ready to go back to normal classes this year?

Consequently, the next step was to analyze the answers provided by the students in this short interview. Regarding section 1, these were the questions asked, the answers provided by the students and the corresponding analysis.

Question #1: What do you think about virtual classes?

Student #1: “Does not mind them but they are sometimes boring.”

Student #2: “They are not the same as receiving normal classes.”

Student #3: “Really like them.”

Student #4: “Likes receiving virtual classes because they are home.”

Student #5: “Does not mind receiving virtual classes but misses the friends.”

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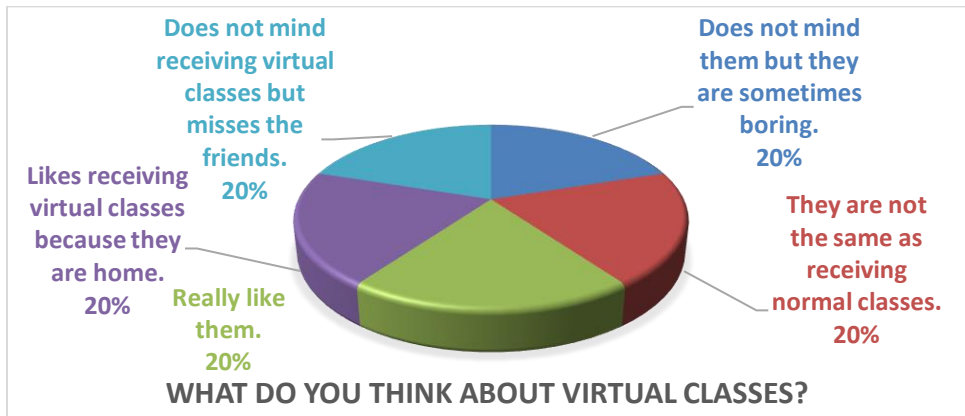


Figure 1 shows what the students think about the virtual classes. Sources: Researcher's own creation.

Question #2: Do you rather virtual or normal classes?

Student #1: "Virtual"

Student #2: "Normal"

Student #3: "Virtual"

Student #4: "Virtual"

Student #5: "Virtual"

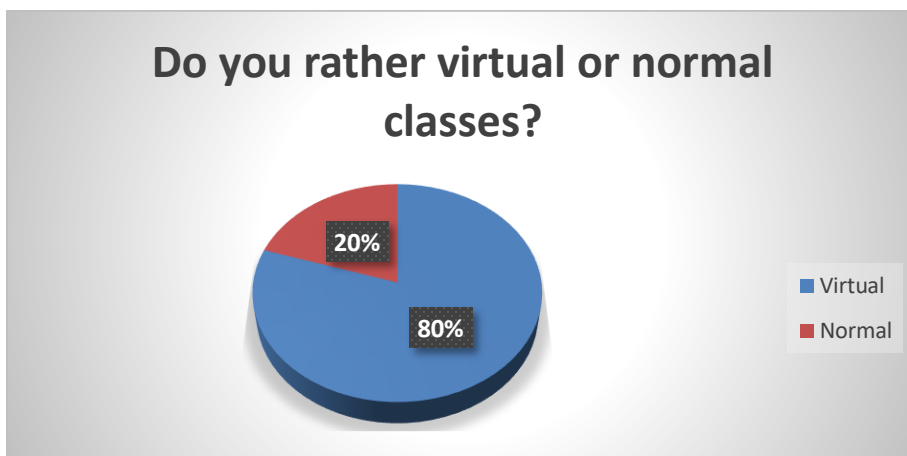


Figure 2 shows if students rather virtual or normal classes. Source: Researcher's own creation.

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Question #3: Do you think it has affected you in a bad way?

Student #1: “Yes”

Student #2: “Yes”

Student #3: “No”

Student #4: “No”

Student #5: “Maybe, it depends.”

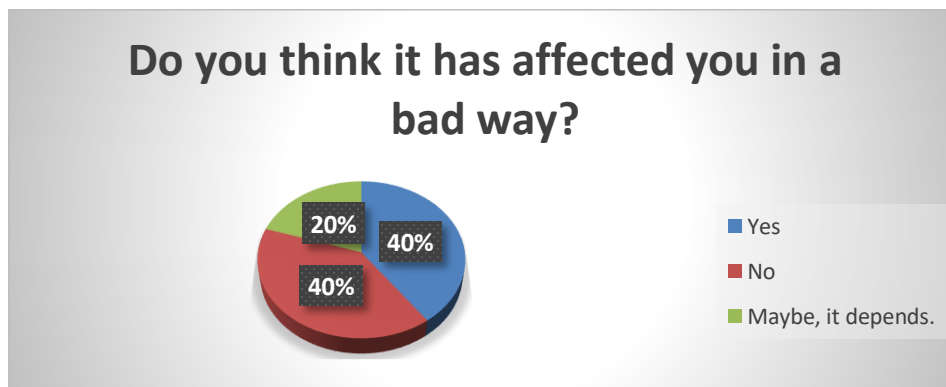


Figure 3 shows if students think it has affected them in a bad way receiving virtual classes. Source: Researcher's own creation.

Question #4: Do you recommend other students to receive virtual classes?

Student #1: “Yes, even though is harder to pay attention.”

Student #2: “No, because it is not the same.”

Student #3: “Yes, totally.”

Student #4: “Yes, because you are home.”

Student #5: “No, there are too many distractions.”

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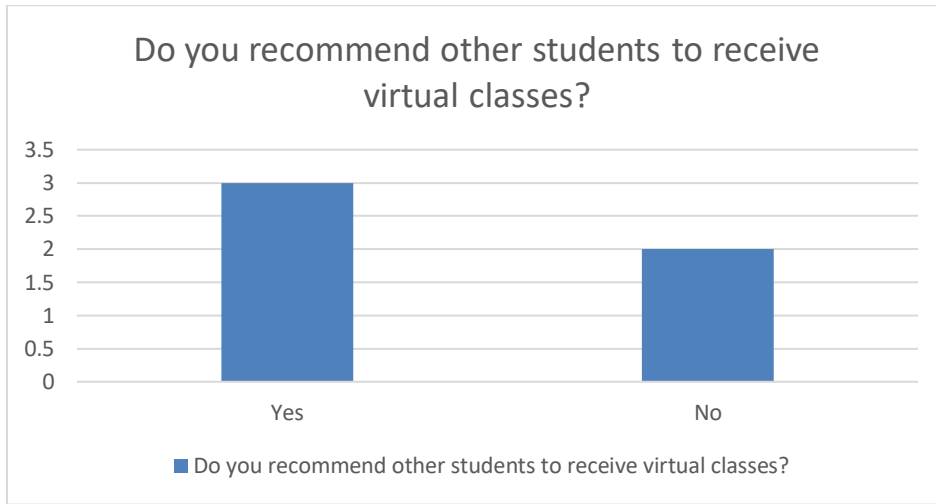


Figure 4 shows if students recommend other students receive virtual classes. Researcher's own creation.

Question #5: Are you ready to go back to normal classes this year?

Student #1: "No, because we are still with the virus."

Student #2: "Yes, of course."

Student #3: "Not sure, I will do whatever my mom says."

Student #4: "No, I want to stay at home."

Student #5: "No, not yet."

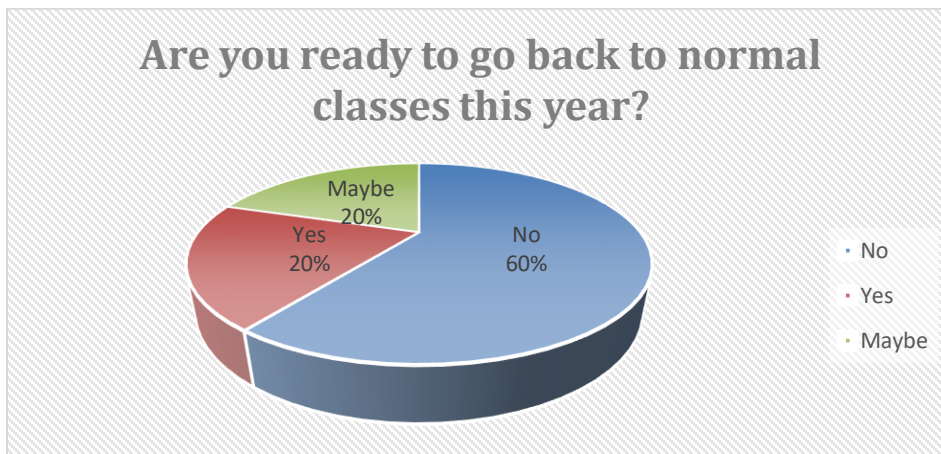


Figure 5 shows if students are ready to go back to normal classes or not. Source: Researcher's own creation.

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The answers provided by the students allowed the researcher to find out how the majority of them rather keep having virtual classes than going back to school. However, some of the students were not entirely sure, as they stated that they missed their friends or would feel that they had more distractions at home. At the end, even though they had different opinions regarding this topic that is new to them they gave the investigator a glimpse on how what they truly feel and think was the idea of this interview.

4.1.3 Comparative Chart

With the comparative chart, the researcher was able to compare a bigger number of answers provided by the students, as whether they rather keep having virtual classes or going back to normal classes. Due to the radical change that the students underwent to receive virtual classes from one day to the other, it is important to know how they truly feel about the process and change. These kinds of comparative charts can also be considered suggestive in order to make future decisions. For example, after all, it could be a good idea to keep virtual classes, as this can actually benefit a significant number of students with their education, especially those who live far away from the institutions. In order to gather the answers from the students, they received just one question in which they had to answer with “yes” or “no” and quickly to explain why. With the answers provided by the students, the investigator was able to gather the results, in which it can be seen if students rather keep having virtual classes or not.

4.2 Class Planning

In order to know if the virtual application Zoom works to offer classes to the students, the investigator needed to give the classes. This was a good way to know if the application worked or not, what instruments are really necessary to be used, if the application needed to add more

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instruments or not, but most importantly, if students learned and participated while receiving virtual classes. For this to take place, some lesson plans were made. In total, there were 5 lesson plans that included objectives, strategies, and activities. These lessons were given to two different groups, for a total of 20 students. During the classes, the students did appreciate the tolerance and enthusiasm of the investigator when teaching, as well as the new activities carried out. Some of the students were shy at first, but there were others that were more confident about themselves. While the class was taking place, the students started to relax and started to speak and participate more. That demonstrated that the lesson plans were working for all students.

On February 22nd, the first class was taught using the application Zoom. That day, there were six students in the class and the topic was daily routines, which was taught to a basic English class. To begin with, the researcher stated the objectives; these were to describe daily activities and routines through the use of images and vocabulary. The activities that were included, addressed the objectives and helped the students to fulfill them. The activities used in the first lesson plan were as follows. Since it was a basic English class, for the warmup, the investigator wanted the students to repeat the words under study, as this helped the students with the correct pronunciation and if they did not know a word it was a good way to learn it. After the warmup, the investigator started asking the students about different daily routines. Once they were done, the investigator continued by introducing different daily routines and explaining each one in order to have every routine clear.

One activity done by the students was that they would have to think about different daily routines and had to place them in the alphabetic order. When they were done, each one of the students would have to tell the rest of their classmates what they had come up with. This helped the students overcome their shyness and started to participate more, as they saw that all of them

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were there to learn and have fun at the same time. In the last part the students had to think of the new daily routines learnt and to share with their classmates and the investigator, their two new favorite daily routines. Moreover, to evaluate the performance of the students, at the end of the class the researcher made a conversation with all the students regarding what they had learned. This was an easy way to measure what they had learned regarding the topic seen that day. It is essential to know if the students were able to recognize the new vocabulary learned in class, but most importantly, it was necessary to know if teaching via a virtual application the students were able to learn. After the class was done, the researcher knew that teaching through a virtual application can be possible.

The investigator, thanks to the lesson plans, attached to the annexes, of the classes she interacted with the goal society (students from 11 to 16 years old at the Polytechnical Institute), saw that the classes could be more organized all the times. This in order to take advantage of the time, be able to enjoy more the classes, and learn more. Moreover, the students were able to learn everything they could which was one of the main goals of this investigation. The following are the lesson plans provided to the Institute:

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Instructor's name:	<u>Jessica Leiva Quiros</u>	Region:	<u>Desamparados</u>
Subject:	<u>Daily Routines</u>	School Term:	<u>Polytechnical Center</u>
Level:	<u>Basic English</u>	Weeks:	<u>1</u>
Date:	<u>22/02/2021</u>	Plan Number:	<u>1</u>

<i>Linguistic objectives</i>	<i>Mediation Strategies</i>	<i>Evaluation of learning outcomes</i>
<p>At the end of the lesson ss will be able to:</p> <ul style="list-style-type: none"> Describe daily activities and routines through the use of images and new vocabulary. 	<p>WU: Ss will repeat what the teacher does and repeat the words.</p> <p>PRS: Ss will be introduced to the different daily routines.</p> <ul style="list-style-type: none"> The teacher will show and explain the different daily routines that ss can do. <p>PRT: Ss will practice by doing an alphabetic order practice.</p> <ul style="list-style-type: none"> Students individually will have different types of daily routines, they will have to place them in alphabetic order. <p>CLOS: At the end, each ss will be able to describe two new daily routine they learnt in the class.</p>	<p>Ss will be assessed through...</p> <ul style="list-style-type: none"> Describing different daily routines, especially the new ones learnt.

Use of the application Zoom as a professional development tool in teaching as an encouragement for students in difficult times

Instructor's name:	<u>Jessica Leiva Quiros</u>	Region:	<u>Desamparados</u>
Subject:	<u>Determiners (demonstrative)</u>	School Term:	<u>Polytechnical Center</u>
Level:	<u>Basic English</u>	Weeks:	<u>1</u>
Date:	<u>23/02/2021</u>	Plan Number:	<u>2</u>

<i>Linguistic objectives</i>	<i>Mediation Strategies</i>	<i>Evaluation of learning outcomes</i>
<p>At the end of the lesson ss will be able to:</p> <ul style="list-style-type: none"> Identify the determiners and comprehend how to use each one of them. 	<p>WU: Ss will be asked to say outloud a sentence regarding the determiner given by the teacher.</p> <p>PRS: Ss will be introduced to determiners</p> <ul style="list-style-type: none"> Explain the demonstrative usage (near the speaker vs far from the speaker). Sentence placement. https://www.youtube.com/watch?v=GlbD5seHH-E&feature=emb_title <p>PRT: Ss will practice with an activity called “Run and touch the object”.</p> <ul style="list-style-type: none"> The teacher says things that are in the classroom using the demonstrative pronouns and students must run and touch those objects. So, for example, if the teacher says “these are pencils” students must touch the pencils nearest to the teacher. For virtual classes, will ask ss things that they will have in their school bookbags. <p>CLOS: At the end, the teacher will close with a simple online activity. https://www.grammar.cl/Games/This_That_These_Those.htm</p>	<p>Ss will be assessed through...</p> <ul style="list-style-type: none"> Identifying each demonstrative determiners and how to use them correctly.

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Instructor's name:	<u>Jessica Leiva Quiros</u>	Region:	<u>Desamparados</u>
Subject:	<u>Jobs</u>	School Term:	<u>Polytechnical Center</u>
Level:	<u>Intermediate English</u>	Weeks:	<u>1</u>
Date:	<u>24/02/2021</u>	Plan Number:	<u>3</u>

<i>Linguistic objectives</i>	<i>Mediation Strategies</i>	<i>Evaluation of learning outcomes</i>
<p>At the end of the lesson ss will be able to:</p> <ul style="list-style-type: none"> • Discuss the different types of jobs and explain their dream job. 	<p>WU: students will mention five different types of jobs they know about.</p> <p>PRS: Ss will be introduced to a variety of jobs.</p> <ul style="list-style-type: none"> • Explain a variety of jobs, covering the most common. <p>PRT: Ss will practice with a role play.</p> <ul style="list-style-type: none"> • Students in pair will have to make up a role play regarding a job. They will be able to choose whatever job they like but each student must choose a different one. They must act just as the professional they chose. <p>CLOS: At the end, each student must give a brief explanation of their dream job.</p>	<p>Ss will be assessed through...</p> <ul style="list-style-type: none"> • Discuss and explain the different types of jobs.

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Instructor's name:	<u>Jessica Leiva Quiros</u>	Region:	<u>Desamparados</u>
Subject:	<u>Prepositions of Place</u>	School Term:	<u>Polytechnical Center</u>
Level:	<u>Intermediate English</u>	Weeks:	<u>2</u>
Date:	<u>03/03/2021</u>	Plan Number:	<u>4</u>

<i>Linguistic objectives</i>	<i>Mediation Strategies</i>	<i>Evaluation of learning outcomes</i>
<p>At the end of the lesson ss will be able to:</p> <ul style="list-style-type: none"> Apply the correct usage of prepositions of place when describing something. 	<p>WU: Ss will repeat after the teacher each preposition.</p> <p>PRS: Ss will be introduced to the prepositions of place.</p> <ul style="list-style-type: none"> Students will watch a video in which the prepositions of place are explained, after the video is over they can ask questions if they have any. https://www.youtube.com/watch?v=4530pfmquro <p>PRT: Ss will practice with several online activities.</p> <ul style="list-style-type: none"> https://www.english-4u.de/en/grammar-exercises/prepositions-place.htm https://speakSpeak.com/english-grammar-exercises/intermediate/prepositions-of-place-at-in-on https://www.myenglishpages.com/site_php_files/grammar-exercise-prepositions.php <p>CLOS: At the end, each student will write three sentences choosing three different prepositions.</p>	<p>Ss will be assessed through...</p> <ul style="list-style-type: none"> Applying the correct usage of each prepositions of place.

Use of the application Zoom as a professional development tool in teaching as an encouragement for students in difficult times

Instructor's name:	<u>Jessica Leiva Quiros</u>	Region:	<u>Desamparados</u>
Subject:	<u>Oral Class – Role Play</u>	School Term:	<u>Polytechnical Center</u>
Level:	<u>Basic/Intermediate English</u>	Weeks:	<u>2</u>
Date:	<u>04/03/2021</u>	Plan Number:	<u>5</u>

<i>Linguistic objectives</i>	<i>Mediation Strategies</i>	<i>Evaluation of learning outcomes</i>
<p>At the end of the lesson ss will be able to:</p> <ul style="list-style-type: none"> • Speak fluently with their classmates and teacher. 	<ul style="list-style-type: none"> • The group will be divided into groups or pair depending the number of students. • Each group or pair will have either the option to choose their own topic or the teacher will provide the topic. • The groups will have a certain amount to prepare themselves and then to do their role play. • This activity will help students lose their shyness and help them with their pronunciation. 	<p>Ss will be assessed through...</p> <ul style="list-style-type: none"> • Speaking fluently with their classmates and teacher.

In the last class given to the students, the investigator wanted to try something different. The last class was an oral class, in which the investigator could actually measure everything that the students had learned during the past lessons. This helped enhancing students' general skills and confidence in the oral expression. These oral classes provided innovative, discipline-based instruction to help students to refine their personal speaking styles. In addition, it was entertaining and the students felt comfortable with themselves and let all their knowledge free. Moreover, it was important for them to start getting used to the application and to know that it was a new way of learning and that this can go on for a long time. Although the interaction among the students is not the same because they are not sharing in person, that day the class felt just like they were all together, which allowed the class and activities to flow pleasingly. With this class and activity, it was confirmed that the application works, the teachers and even students just need to know how to use each tool provided by the application in order to teach quality classes to students, so that they could continue with their education.

Chapter V

Conclusions and Recommendations

5.1 Purpose of the Conclusion

The purpose of this research was to identify how effective it was to give classes with the virtual application Zoom and how to maintain the students encouraged to keep with their education. With the situation currently lived with the pandemic, teachers and students had to get used to a whole new way of teaching and learning. It was not for sure if teaching through an application was going to work or not and most importantly if students were going to be able to learn because this was incredibly challenging to them. Moreover, it was very important that the students stayed encouraged while receiving virtual classes in order to continue with their education and not to be left behind. Based on the analysis conveyed, it can be concluded that in fact classes can be given through Zoom, but modifications must be made; for example, teachers must be trained in order to know how to use all of the instruments that this application offers and thus, to teach suitable classes. The amount this could improve the lives of others is worth keep investigating, as this recent situation has deeply impacted people's lives.

5.2 Conclusions

A detailed description of what it was obtained objective by objective from the investigation will be explained as follows. Therefore, all the results can be analyzed in a more organized manner. With this said, the following conclusions could be determined after the whole investigation and experimentation process was carried out.

5.2.1 To investigate the use of the Zoom application in the educational field.

When the Zoom application was invented, it was never made for teaching purposes, but for personal use. When the pandemic arrived, schools, high schools and universities became affected by this problem; consequently, it was necessary to think on an strategy to continue providing education to the students and that was when the application Zoom was considered. Zoom has worked pleasingly while providing the service of giving classes. It is an application that has several instruments to offer classes as similar as possible as to when they were face in face. With the present research, it can be confirmed that Zoom can be used as an application in the educational field.

5.2.2 To analyze how the Zoom application is taken by the student population concerning virtual classes.

For students to go from receiving classes in a classroom full of students and objects around them to receive classes at home was very complicated. It was a change that they were not ready for, as they started using an application that most of them did not know it existed. They had to get used to a whole new way of learning; however, students were amazingly fast in adapting on how to use the application. By the end of this investigation, the students showed that they enjoyed receiving classes virtually and most importantly, that they were able to learn.

5.2.3 To compare if students rather receive virtual classes or in-person classes.

The population of students are more willing to continue studying virtually than going to in-person classes. One important reason may be the fear to the virus, since

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everything is still very recent. Even though, the change of going to in-person classes to virtual classes was gigantic for them, they understood that education is the most important thing. Although, the population is going through difficult times everything must continue. With this research, it can be established that the majority of students rather keep receiving virtual classes at the moment.

5.3 Restatement of the Research Question

For this research, the problem that the investigator thought was major was how to keep the students encouraged while receiving virtual classes? After the investigation was carried out and the information was obtained with the help of the instruments created to keep the students encouraged, some important issues have to be taken into consideration. For example, the teachers must be well prepared to give their classes, students must feel comfortable to participate in class, among others. The students at the Polytechnical Instituted expressed that they felt comfortable and that they were able to keep learning while receiving virtual classes.

5.4 Unexpected Results

During the experimental phase, many results were obtained when working with the target population, which in this case were children from 11 to 16 years old at the Polytechnical Institute in Frailes, Desamparados, Costa Rica. These findings were very satisfactory because it demonstrated that the objectives of the research could allow the researcher to help the target population and mark a new beginning for the students around the world. Next, some of the most important unexpected results will be mentioned. First, within the unexpected results, it is necessary to remark that the students responded better than anticipated because at the beginning, when the observations were made, students were more reserved, just as if they did not know their

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classmates. However, when applying the activities stated in the lesson plans, students were more committed to verbally express their ideas, and participate more, which was very important while teaching virtually.

Subsequently, something unexpected was that students really appreciated the effort of the teacher who was working with them. By nature, it is already difficult to teach, but now with the situation currently lived, it is even more difficult to do, as it has to be virtually. Nevertheless, with patience and applying the correct techniques it was possible to accomplish the goal, which was that the students were able to participate and feel comfortable while receiving classes in order for them to feel encouraged to continue with their education. Finally, the students of the institute showed that it is achievable to learn while receiving virtual classes. The application Zoom offers a variety of instruments to make the students feel just as if they were in the classroom. At first, the idea of teaching virtually was probably not the best option, but it was the only one that existed at that time, and to be able to confirm that it worked, it made it an unpredicted result.

5.5 Recommendations

First, all the materials that the teachers can use are powerpoint presentations, videos, worksheets, and even activities; therefore, they should be prepared before the session starts. Even if the classes are virtual, all these aspects must be arranged and taken into consideration in order to teach a good class and take advantage of the time, as it is limited. This also shows to the students that the teacher is well-prepared, and it transmits them the required confidence to feel that they are being well taught.

Second, it would be important to provide the teachers with a training on capacitation how to use the virtual application, Zoom. A big number of teachers, not to say the majority,

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did not know how to use the application which caused a lot of postponements. Some teachers did not know how to even share their screen and to put the mic on mute, just to mention some examples. The application offers a big variety of instruments which can help teachers to provide a suitable class. Consequently, it would be a good idea for teachers to be skilled on how to use this application and be able to take full advantage of it.

Finally, even if the classes go back to normal, it would be a good idea for the institutions to continue using virtual platforms such as a Zoom to teach classes. This could benefit many students who cannot go to high school or universities due to different factors such as financial or distance. Being able to provide different study options serves to keep students encouraged to continue with their education and have a brighter future. With different options to study, there would be no excuses to not continue studying.

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Annexes

Survey:

Have you heard of the application Zoom?

Teacher A: “Yes, I use it for my personal needs.”

Teacher B: “Yes, but never used it before for anything, but I have heard it’s a good application.”

Have you used Zoom as a teaching tool before?

Teacher A: “No, never.”

Teacher B: “No.”

Do you think the application has all the instruments needed in order to provide a class?

Teacher A: “Yes, totally but some of the teachers do not know how to use those things.”

Teacher B: “I think it is very difficult to provide classes through a computer but now it has to be done that way and Zoom works.”

Do you think giving classes through an application is the same as giving normal classes?

Teacher A: “Not really but it can work.”

Teacher B: “Those students who want to learn will learn no matter what the circumstance.”

Would you keep using Zoom to give classes?

Teacher A: “Now that I have used it to give classes I can work with it.”

Teacher B: “Yes, for the moment it has been alright, but I do think teachers need to know how to use it more.”

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Interview:

Interview for the students at the Polytechnical Center

1. What do you think about virtual classes?
2. Do you rather virtual or normal classes?
3. Do you think it has affected you in a bad way?
4. Do you recommend other students to receive virtual classes?
5. Are you ready to go back to normal classes this year?

Instructor's name:	<u>Jessica Leiva Quiros</u>	Region:	<u>Desamparados</u>
Subject:	<u>Daily Routines</u>	School Term:	<u>Polytechnical Center</u>
Level:	<u>Basic English</u>	Weeks:	<u>1</u>
Date:	<u>22/02/2021</u>	Plan Number:	<u>1</u>

<i>Linguistic objectives</i>	<i>Mediation Strategies</i>	<i>Evaluation of learning outcomes</i>
<p>At the end of the lesson ss will be able to:</p> <ul style="list-style-type: none"> Describe daily activities and routines through the use of images and new vocabulary. 	<p>WU: Ss will repeat what the teacher does and repeat the words.</p> <p>PRS: Ss will be introduced to the different daily routines.</p> <ul style="list-style-type: none"> The teacher will show and explain the different daily routines that ss can do. <p>PRT: Ss will practice by doing an alphabetic order practice.</p> <ul style="list-style-type: none"> Students individually will have different type of daily routines, they will have to place them in alphabetic order. <p>CLOS: At the end, each ss will be able to describe two new daily routine they learnt in the class.</p>	<p>Ss will be assessed through...</p> <ul style="list-style-type: none"> Describing different daily routines, especially the new ones learnt.

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Instructor's name:	<u>Jessica Leiva Quiros</u>	Region:	<u>Desamparados</u>
Subject:	<u>Determiners (demonstrative)</u>	School Term:	<u>Polytechnical Center</u>
Level:	<u>Basic English</u>	Weeks:	<u>1</u>
Date:	<u>23/02/2021</u>	Plan Number:	<u>2</u>

<i>Linguistic objectives</i>	<i>Mediation Strategies</i>	<i>Evaluation of learning outcomes</i>
<p>At the end of the lesson ss will be able to:</p> <ul style="list-style-type: none"> Identify the determiners and comprehend how to use each one of them. 	<p>WU: Ss will be asked to say outloud a sentence regarding the determiner given by the teacher.</p> <p>PRS: Ss will be introduced to determiners</p> <ul style="list-style-type: none"> Explain the demonstrative usage (near the speaker vs far from the speaker). Sentence placement. https://www.youtube.com/watch?v=GlbD5seHH-E&feature=emb_title <p>PRT: Ss will practice with an activity called “Run and touch the object”.</p> <ul style="list-style-type: none"> The teacher says things that are in the classroom using the demonstrative pronouns and students must run and touch those objects. So, for example, if the teacher says “these are pencils” students must touch the pencils nearest to the teacher. For virtual classes, will ask ss things that they will have in their school bookbags. <p>CLOS: At the end, the teacher will close with a simple online activity. https://www.grammar.cl/Games/This_That_These_Those.htm</p>	<p>Ss will be assessed through...</p> <ul style="list-style-type: none"> Identifying each demonstrative determiners and how to use them correctly.

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Instructor's name:	<u>Jessica Leiva Quiros</u>	Region:	<u>Desamparados</u>
Subject:	<u>Jobs</u>	School Term:	<u>Polytechnical Center</u>
Level:	<u>Intermediate English</u>	Weeks:	<u>1</u>
Date:	<u>24/02/2021</u>	Plan Number:	<u>3</u>

<i>Linguistic objectives</i>	<i>Mediation Strategies</i>	<i>Evaluation of learning outcomes</i>
<p>At the end of the lesson ss will be able to:</p> <ul style="list-style-type: none"> Discuss the different types of jobs and explain their dream job. 	<p>WU: students will mention five different types of jobs they know about.</p> <p>PRS: Ss will be introduced to a variety of jobs.</p> <ul style="list-style-type: none"> Explain a variety of jobs, covering the most common. <p>PRT: Ss will practice with a role play.</p> <ul style="list-style-type: none"> Students in pair will have to make up a role play regarding a job. They will be able to choose whatever job they like but each student must choose a different one. They must act just as the professional they chose. <p>CLOS: At the end, each student must give a brief explanation of their dream job.</p>	<p>Ss will be assessed through...</p> <ul style="list-style-type: none"> Discuss and explain the different types of jobs.

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Instructor's name:	<u>Jessica Leiva Quiros</u>	Region:	<u>Desamparados</u>
Subject:	<u>Prepositions of Place</u>	School Term:	<u>Polytechnical Center</u>
Level:	<u>Intermediate English</u>	Weeks:	<u>2</u>
Date:	<u>03/03/2021</u>	Plan Number:	<u>4</u>

<i>Linguistic objectives</i>	<i>Mediation Strategies</i>	<i>Evaluation of learning outcomes</i>
<p>At the end of the lesson ss will be able to:</p> <ul style="list-style-type: none"> Apply the correct usage of prepositions of place when describing something. 	<p>WU: Ss will repeat after the teacher each preposition.</p> <p>PRS: Ss will be introduced to the prepositions of place.</p> <ul style="list-style-type: none"> Students will watch a video in which the prepositions of place are explained, after the video is over they can ask questions if they have any. https://www.youtube.com/watch?v=4530pfmquro <p>PRT: Ss will practice with several online activities.</p> <ul style="list-style-type: none"> https://www.english-4u.de/en/grammar-exercises/prepositions-place.htm https://speakSpeak.com/english-grammar-exercises/intermediate/prepositions-of-place-at-in-on https://www.myenglishpages.com/site_php_files/grammar-exercise-prepositions.php <p>CLOS: At the end, each student will write three sentences choosing three different prepositions.</p>	<p>Ss will be assessed through...</p> <ul style="list-style-type: none"> Applying the correct usage of each prepositions of place.

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Instructor's name:	<u>Jessica Leiva Quiros</u>	Region:	<u>Desamparados</u>
Subject:	<u>Oral Class – Role Play</u>	School Term:	<u>Polytechnical Center</u>
Level:	<u>Basic/Intermediate English</u>	Weeks:	<u>2</u>
Date:	<u>04/03/2021</u>	Plan Number:	<u>5</u>

<i>Linguistic objectives</i>	<i>Mediation Strategies</i>	<i>Evaluation of learning outcomes</i>
<p>At the end of the lesson ss will be able to:</p> <ul style="list-style-type: none"> • Speak fluently with their classmates and teacher. 	<ul style="list-style-type: none"> • The group will be divided into groups or pair depending the number of students. • Each group or pair will have either the option to choose their own topic or the teacher will provide the topic. • The groups will have a certain amount to prepare themselves and then to do their role play. • This activity will help students lose their shyness and help them with their pronunciation. 	<p>Ss will be assessed through...</p> <ul style="list-style-type: none"> • Speaking fluently with their classmates and teacher.

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Carta de Justificación de las Clases Impartidas

Estimado señor:

Leslie Elizondo

Universidad Internacional de las Américas

Estimado señor:

El instituto Polytechnical Center, Frailes hace de su conocimiento que Jessica Leiva Quirós, cédula de identidad número 304760330. Bajo la responsabilidad de mi persona Karol Rivera Fallas, cédula de identidad número 115890974 con un cargo de directora académica del instituto Polytechnical Center hace constar que Jessica Leiva Quiros cumplió con las clases para la investigación de tesis.

Cordialmente,

Karol Rivera Fallas



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