

**UNIVERSIDAD INTERNACIONAL DE LAS
AMÉRICAS**

VICERRECTORIA ACADÉMICA

SCHOOL OF EDUCATION AND FOREIGN LANGUAGES

**Strengthen Classroom Engagement and Academic Performance
in Virtual Classes by Improving Classroom Interaction on
Fourth Graders at Saint Michael School during the Second
Quarter 2021**

Thesis Submitted to Obtain the Bachelor in English with Concentration in Teaching

STUDENT: ARLETTE LESCOUFLAIR MADRIGAL

THESIS MENTOR: YANITH DELGADO

SEDE ARANJUEZ

August, 2021



Universidad Internacional de las Américas Código de Ética

La suscrita **Arlette Andrea Lescouflair Madrigal**, número de carné: **117260875** graduada del grado de **Bachillerato** de la Universidad Internacional de las Américas, se compromete a cumplir, durante el ejercicio profesional, con el Código de Ética de la Institución, que se rige por los siguientes principios:

PROBIDAD: actuar siempre con rectitud y honradez.

PRUDENCIA: actuar con pleno conocimiento de la materia sometida a su consideración.

JUSTICIA: permanente disposición hacia las funciones de la profesión, bajo los lineamientos legales que debe respetar todo profesional.

RESPONSABILIDAD: cumplir con los deberes, tanto en calidad como en oportunidad.

DISCRECIÓN: guardar respeto sobre los hechos o informaciones de los que tenga conocimiento con motivo del ejercicio profesional, sin que esto perjudique las funciones y responsabilidades.

INDEPENDENCIA DE CRITERIO: no involucrarse o comprometerse con situaciones, intereses o actividades contrarias a la moral, a la sana crítica y que, por ley, sean incompatibles con las funciones profesionales correspondientes.

DIGNIDAD Y DECORO: actuar con sobriedad y moderación.

TOLERANCIA: evidenciar una actitud paciente y de comprensión ante las opiniones divergentes que puedan expresar otras personas.

EQUILIBRIO: desempeñar las funciones profesionales con sentido práctico, buen juicio y equidad.

ACTUALIZACIÓN: comprometer parte del tiempo en actualizar los conocimientos y adaptarlos en el desarrollo de la actividad profesional.

VOCACIÓN: mostrar siempre apego al trabajo y a la educación recibida, como fundamentos para el desempeño laboral.

BUENA FE: toda conducta o comportamiento, criterio emitido y labor desempeñada debe basarse en los más altos principios éticos y tendrá como fundamento la buena fe.

Arlette Lescouflair Madrigal

117260875

Table of Contents

Chapter I.....	13
Introductory Framework.....	13
1.1 Problem Statement	14
1.2 Objectives of the Investigation	15
1.2.1 General Objective.....	16
1.2.2 Specific Objective	16
1.3 Justification of the Study.....	16
1.4 Antecedents	18
1.5 Scope	20
Chapter II.....	22
Theoretical Framework	22
2.1 Literature Review	22
2.1.2 Importance of English teaching in Costa Rica and History.....	22
2.1.2.1 <i>Late XIX century through beginnings of XX</i>	23
2.1.2.2 <i>Current teaching situation, 2021</i>	26
2.1.3 Virtual Learning	27
2.1.3.1 <i>Virtual Learning Environments</i>	28
2.1.4 E- Learning.....	31
2.1.4.1 <i>eLearning History</i>	32
2.1.5 Approaches.....	34
2.1.5.1 <i>Surface Backwards Design</i>	35
2.1.5.1.1 <i>History</i>	36
2.1.6 Teacher and Student Roles	36
2.1.6.1 <i>Teacher's role</i>	37
2.1.6.2 <i>Student's role</i>	38
2.1.7 Virtual Tools	39
2.1.7.1 <i>Virtual Tools in Learning</i>	40
2.1.7.2 <i>Virtual Classes Platforms</i>	40
2.1.7.3 <i>Didactic resources</i>	41
2.1.8 Repercussions in Learning.....	41

2.1.8.1 <i>Repercussions on learning a second language</i>	42
2.1.9 Classroom Interaction	42
2.1.9.1 <i>Strategies of Promoting Classroom Interaction</i>	44
Chapter III.....	46
Methodological Framework.....	46
3.1 Research Approach.....	46
3.1.1 Qualitative Approach.....	46
3.2 Research Design	47
3.2.1 Action Research.....	48
3.2.2 Descriptive Research	48
3.3 Information Sources.....	49
3.3.1 Primary sources	50
3.3.2 Secondary sources.....	50
3.3.3 Tertiary sources	51
3.6 Collection Data Process and Data Analysis.....	54
3.6.1 Steps to get the data and analyze it in order to get the results	55
Chapter V	69
Conclusions and Recommendations	69
5.1 Purpose of the conclusion	69
5.2 Conclusions	69
5.5 Unexpected Results	71
Annexes.....	73
Weekly Guide	77
Weekly Guide	81
Bibliographical References.....	85

Abstract

Technology has given us many ways to create different learning methods, we not only had to get used to a new way of life surrounded by it but also to adapt learning and teaching through it, teaching a second language is not far behind to be adaptable in the virtual world.

Basically, this is how we have learned to live in a world where to acquire a new language you must go and sit on a desk and learn, applying different face-to-face methods, creating a teaching tradition in society. Virtuality has given us a new modality and the opportunity to create new techniques, procedures and dynamics to teach. However, this modality has brought endless challenges and difficulties.

This research will observe which are the most common difficulties in these classes, and will apply the eLearning methodology in such a way that the classes can be more entertaining and thus improve the engagement of the students, resulting in good academic performance. This investigation will be done in Saint Michael School, located in Desamparados, with students between 9 and 11 years old.

Resumen

La tecnología hoy en día nos ha brindado muchas formas de crear diferentes métodos de aprendizaje en humanos, no solo hemos tenido que acostumbrarnos a una nueva forma de vida rodeados de ella sino también adaptarnos al aprendizaje a través de ella, enseñar una segunda lengua no se queda atrás para ser adaptable en el mundo virtual.

Básicamente, así es como hemos aprendido a vivir en un mundo donde para aprender un nuevo idioma hay que ir a sentarse en un escritorio y aprender, aplicando diferentes métodos presenciales, creando una tradición docente en la sociedad. La virtualidad no te ha dado la nueva modalidad y la oportunidad de crear nuevas técnicas, procedimientos y dinámicas para enseñar. Sin embargo, esta modalidad ha traído un sinnúmero de desafíos y dificultades.

Esta investigación observará cuáles son las dificultades más comunes en estas clases, y aplicará la metodología eLearning de tal forma que las clases puedan ser más entretenidas y así mejorar el compromiso de los alumnos durante las mismas, dando como resultado un buen rendimiento académico. Esta investigación se realizará en el colegio Saint Michael, ubicado en Desamparados, con alumnos de entre 9 y 11 años.

Chapter I

Introductory Framework

In this chapter, the reader will be provided the relationship of the background of all the information used in the research. As Wilkinson (1991) suggested, along the totality of the introductory framework chapter, the purpose of this chapter is to help the readers to understand how this investigation is related with other researches that include information about the main topic of this investigation. The topic for this investigation is strengthening classroom engagement and academic performance in virtual classes by improving classroom interaction on fourth graders at Saint Michael School during the second quarter of 2021.

It has to be stated that it is outstanding how the Ministerio de Educación Pública has evolved and improved the quality of education in Costa Rica. According to M.E.P official site, the MEP and Instituto Costarricense de Enseñanza Radiofónica have had a cooperative relationship since 1974, with a project called “Maestro en Casa,” which now is known as primary education (I and II cycle). After such an agreement started, this relationship was approved and then originated, the third cycle of general basic education. This program was implemented as an experiment trying different plans, programs, and supporting materials since August 25, 1981. It was made up by San Ramón, San José, Naranjo, Poás, Escazú, Heredia, and Pacayas. It is understood that these organizations carried out diverse learning and teaching plans in different Costa Rican institutions in order to experience how it worked and tested how students could take advantage of it. Later on, these plans were approved and implemented. After experimenting to create the program, now it is focused on the young people and adults that, for different reasons, could not conclude their general basic education (MEP official site, n.d.). Concluding this cycle gives students the

opportunity to continue their studies in any other program or modality. As a requirement, students must have at least 14 years old in order to get into the program, as well as to have approved I and II cycle.

1.1 Problem Statement

Costa Rica has always placed education as a priority when it comes to national policies. Since the Constitution of 1869, elementary school, which goes from is kindergarten to sixth grade, is free, mandatory, and paid for by the government, a decision that has been kept in every single constitution. Because of that, it is well known that throughout the years, Costa Rican education remains among the best in America. Furthermore, the entity in charge of regulating, modifying, and supervising the educational system is the Ministerio de Educación Pública, and has been in charge since 1887.

Over the years, traditional teaching methods have changed, giving us more options. Some more accessible than others. One, that in recent years has taken over the educational system, is the virtual modality due to the great progress worldwide and in all technology fields. One of the key side effects of this democratization of learning is that it is not for young people seeking to gain new skills. Individuals of any age are now choosing to sign up in online courses. Nevertheless, this new differentiation of ages has had a big impact on the practicalities of offering online courses.

Technology has given us different alternatives to create a great variety of learning techniques and activities. We do not have only to get used to a new way of life surrounded by it, but also to adapt to learning through it, as teaching a second language is not far behind to be adaptable in the virtual world. For a long time, we have been led to believe that in order to learn a second language, it is mandatory to be in a classroom. However,

over the years, it has been shown that, as in many other areas, the acquisition of a second language can be taught virtually in an effective way. In a recent article regarding perspectives on foreign language teaching, Collins and Munoz voiced their concerns about the future of the traditional classroom teaching and learning. They raised an interesting question: “Are language teachers truly an endangered species, and has the language classroom become an obsolete learning environment?” (Collins & Munoz, 2016, p.133). The authors of such paper are inclined to think that, at least for a while and at least in the case of Romanian education, language teaching will still take place within the walls of classrooms. However, considering recent preoccupations of Romanian foreign language instructors on taking advantage of the richness of technological tools and Internet-based applications and platforms, the trend seems to be on the inclusion of technological aids in the language class. Exactly the same happens with any second language.

As a result of the well-known pandemic worldwide due to an illness caused by a novel coronavirus now called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; formerly called 2019-nCoV), the use of the virtual modality has increased in order to carry out the study objectives proposed by the Ministerio de Educación Pública since last year. Considering the fact that this was a big change, the present research will include a deep inquiry into the possible ways to strength classroom engagement and academic performance in virtual classes by improving classroom interaction on fourth graders at Saint Michael School during the second quarter of 2021.

1.2 Objectives of the Investigation

1.2.1 General Objective

To improve classroom engagement and academic performance in virtual classes by improving classroom interaction on fourth graders at Saint Michael School during the second quarter of 2021

1.2.2 Specific Objective

- To identify the difficulties that students face while adapting to virtual classes.
- To apply E-learning methodology to improve academic performance and engagement during virtual classes.
- To determine students' performance outcome during virtual classes after the application of E-learning methodology.

1.3 Justification of the Study

A virtual classroom is an online space that shares many functions of a brick-and-mortar classroom. Through a variety of tools and features, a virtual learning space promotes engagement and collaboration. Virtual lessons can be integrated into a curriculum in a variety of ways ranging from supplementary to fully digitized learning. Moreover, teachers have found a surprising number of situations where a virtual learning environment is beneficial. The advantages of virtual classrooms range from their excellent interactivity to providing a comfortable and familiar learning paradigm.

Technology has given us many ways to create different learning methods. Professors have not only had to get used to a new way of life, but also had to adapt learning through it, as teaching a second language is not far behind to be adaptable in the virtual world.

Basically, we have learned to live in a world where to learn a new language, it is necessary to sit in front of a desk and learn, applying different face-to-face methods. Nevertheless, the virtual modality has given us the opportunity to create new techniques, procedures, and

dynamics to teach. Several years ago, professors worked hand in hand with the administration in different ways to get and keep students' attention during classes by creating different methods and techniques, so attention and performance could be achieved. It has been a difficult and long process, and now with the globalization and the start of virtual classes it has become different and a bit more difficult than it was.

Covid-19 affected all of us in different ways. This pandemic has successfully forced global shutdown of several activities, including educational activities. This has resulted in a migration of high schools to online learning. Therefore, with this investigation, it is intended to understand the impact that virtual learning has caused, the areas that could be improved, and the influence of different factors in a class deriving from various scenarios such as age, level of education, gender, the study group sample, and social strata, among others. In addition, this area of investigation includes background research to study how the virtual classes have impacted the students, starting from the fact that it has caused a notable decrease in students' performance and engagement during the classes.

Learning in virtual environments is the result of a process, according to the humanistic perspective, in which the student builds his learning. It is also the product made from practice, such as work from simulators, as well as the action resulting from a critical analysis work. In other words, allows different perspectives of analysis or evaluation of education, which are also possible in virtuality (Writers, 2021, p.118). Consequently, the purpose of this study is to improve the classroom interaction in online classes by creating and/or selecting the most appropriate teaching techniques and methods to get students attention. Moreover, this study is addressed to fourth graders at Saint Michael School who

are facing the virtual learning during 2021 and whose performance its being affected by the impact of virtual classes.

1.4 Antecedents

Although, it may seem that online education had its beginnings during the late 1900s, the concept of distance learning first came into practice during in the mid-19th century, when the U.S. Postal Service was developed. “The notion of reliable, long-distance correspondence led to the development and implementation of what were called commercial ‘correspondence colleges’, where instructional missives would be distributed through the postal service between students and professors” (Writers, 2021, p.127). It is well-know that today, at-distance education programs have become more sophisticated and accessible due to the proliferation of the web and digital technology.

Forbes (2002) states that “Distance learning began in 1892 when the University of Chicago created the first college-level distance learning program. Expanding from this initial use of the U.S. Postal Service for course correspondence, distance education moved towards live radio shows in 1921 and then televised broadcasts in 1963.” Moreover, he assures that the use of TICs within the teaching-learning process can influence the education of people trained in the use of technologies through the scope of significant learning; curricular, for the fulfillment of the study plans, and technological, through manipulation of resources, both by teachers and students. From the above, it is concluded that more than half of the respondents confirm that the integration of technological tools helps the recognition, selection, interpretation, understanding, anticipation, deduction, and retention in a relevant way in the Micro Skills of the English Language of Oral Comprehension. In addition, a recommendation is given: The authorities, teachers, and

students must be interrelated to be able to make substantial changes, such as putting into practice the use of the Virtual Classroom, which better constitutes a transformative education in accordance with the demands of society through technological tools.

It is well-known that oral comprehension in virtual learning is a huge topic. Mejía (2012) carried out an investigation in the Universidad Central del Ecuador, entitled “Use of Virtual Classrooms in the Development of Oral Comprehension of the English Language for students of the Fourth Level of English of the University Center of Languages of the Central University of Ecuador, Period 2012-2013.” Its main objective was to prepare a proposal to improve teaching and learning in the virtual space, which could meet the needs of students as active participants and considered support for the teaching staff to carry out their work with effectiveness.

Virtual tools are an important topic when talking about learning. Pacheco (2018) conducted an investigation in the Adventist Colombia University Corporation entitled “Virtual Tools for Learning English for Grade 4 of Primary ICOLVEN.” He stated that the applications were not only useful to improve the learning of verbs, but they also helped the students when learning the correct pronunciation of the verbs, since it was observed that the students were able to remember the writing and pronunciation of the verbs. Moreover, he provided following recommendation: We recommend using applications similar to the one used in this research for a longer time to ensure better long-term results.

It is important to bring out B-learning, which is a strategy commonly used as a methodology to improve learning. Hernández (2014) at Universidad Complutense de Madrid, carried out an investigation entitled “B-learning as methodology strategy to improve the learning and teaching process for English students from Universidad Técnica

de Ambato.” Hernández explained that technology is a clear educational tool for students to feel identified with the learning process, in this case, English. This can be done by using a graphic system that adopts a clearer learning when it is necessary to reinforce the subject matter, as the students can also find clear motivation to continue learning. Moreover, it was recommended that children should be supervised both, in the institution and at home, since the technological process can deviate in one way or another the correct vision and behavior in the educational transcendence; therefore, accompaniment is essential to the teaching staff and parents.

When teaching a second language, it is important to think about how to teach different tenses using smart devices. Mora, Zamora, Ramírez, and Garita (2017) at Universidad de Costa Rica, conducted an investigation to facilitate the learning of the past simple and past participle of irregular verbs in English through the applications for smart devices. Moreover, virtual education is implemented not only in schools and high schools, but also in universities as Salgado (2015) at the Catholic University of Costa Rica Anselmo Llorente and LaFuente, investigated under the topic “Teaching and learning in a virtual mode from the experience of graduate students and professors of the Latin American University of Science and Technology (ULACIT).”

1.5 Scope

There are plenty goals that this investigation wants to achieve. Those goals that can be significant for a society that can take advantage of the results obtained from this research. If teachers from other educational institutions in Costa Rica read this document, they can notice how their classes can drastically be improved in quality and significance for all their students. Here, it is shown the limits of the investigation and the results that can be

found after experimenting with the target population, who goal are fourth graders at Saint Michael School. As part of the desired projections, it can be mentioned that this research seeks the following:

- Create a base of efficient virtual tools for teaching English to students from 9 to11-year-old.
- Analyze whether virtual learning is as efficient and successful as face-to-face learning.
- Develop the research as a guide to any language academy and/or institute that wishes to open virtual English teaching courses.

Chapter II

Theoretical Framework

In this chapter, the researcher will include all the theory that will help the investigation to make sense. Moreover, this section will help the researcher to get better results because the investigation can take advantage of the reality to apply it within a society in order to improve it.

2.1 Literature Review

In the following section, the components that are relevant for this investigation, such as the different techniques, methods, and strategies that can be used in order to get students engagement during online classes, are explained, as well as its history and the teachers and students' roles. Another important component is to implement the course accessibility taking into consideration the economic and technological resources the students have, to avoid this from becoming a potential lack of consistency and engagement during classes, so educational performance can be achieved through good interaction.

2.1.2 Importance of English teaching in Costa Rica and History

According to Edwin Marin (2012), in Costa Rica, ESL teaching and learning has become a very important tool for the economy of all people in the country since the XX century, as it is connected to plenty of changes and transformations that, at the same time, are related with particular economic interests and development of the country. The-article written by Marin describes all the events within the evolution of ESL in Costa Rica in a very organized way, so they can be correctly understood.

2.1.2.1 Late XIX century through beginnings of XX

At the end of XIX century, English teaching and learning in Costa Rica played a very important role in the economic development of the whole. This can be confirmed by Quesada (1993), who commented that almost the 50% of the coffee harvests used for exportation were controlled by people from England; in other words, one of the two greatest English-speaking nations. Furthermore, our country was full of English and American companies, such as Arbuthnot Lothan & Co., William Le Lacheur & So, Rosins Bros & Co., Fruhling & Goschen, John K. Gilliat & Co., Otis Mo. Alister & Co., Ellinger & Bros., W.R. Grace & Co., and Castle Bros. & Co.

As remarked in a file in the National Records of Costa Rica, English teaching became official in 1901 due to the great economic impulse that hit the country at the beginning of the XX century. Furthermore, the English culture was very important for the country. This achievement is directly related with the economic improvement of the people at the time. In addition, according to Edwin, it can be mentioned that in schools English had an important improvement related with the one in the XIX century, which did not change during the first two decades of the XX century. The interest of people was the grammar structures, while oral communication was not their priority. Therefore, the lessons were imparted in Spanish, as some notes on the national records confirm.

After English teaching became official in 1901, the method used was the traditional and the majority of teachers were people hired from English speaking countries or Costa Ricans, who had the opportunity to travel to those countries. According to the national records, the teachers hired from United States had a variety of benefits; as for example, they got paid in American gold pesos, they had access to high-class

transportation, food and lodging spends were covered, and they only had to work four hours per day. As Vladimir de la Cruz (2003) mentioned, teaching in 1900 was characterized by its pedagogic value, that it was why it was set up a committee to improve teaching methods and strategies. In 1901, the government with the help of teacher Dr. Zacarías Salinas, who was the principal at of Liceo de Costa Rica, Roberto Brenes Mesén, don José Fidel Tristán, and Juan Dávila, presented a new curricular reform and a new regulation in order to fulfil a more modern society with more capable people in the English area. Finally, the Colegio de Señoritas presented changes in their study plans and new regulations, were done.

At the beginning of the XX century, there was an economic boom in the coffee and banana sectors, and, for example, coffee corps duplicated between 1890 and 1935. This led into an economic growth in the country thanks to the United Fruit Company. The United States government had a great impact on Central America and the Caribbean; therefore, there was a huge economic dependence and an intervention in educational, political, and cultural areas in Costa Rica. Moreover, during the time that Luis Felipe González Flores, sub secretary of “Instrucción” and his brother Lic. Alfredo González Flores (1914-1917) was president, they made educational reforms (1914-1915). However, at the same time, WW1 was taking place, and this. moment in ~~en~~ history brought many changes to the economy ~~in~~ worldwide. Despite the situation the world was facing, president González Flores founded the “Escuela Normal de Costa Rica.”. The reform that Luis Felipe González brought, in 1916, was focused on pedagogic and social practices. However, according to Cabrera (1996), during the 20’s and 30’s there was a shortage of teachers, and this was a problem for the country.

According to a file in the national records of Costa Rica, in order to solve the shortage of teachers that hit the country, in 1931 there was a cultural exchange called “International Friendship League” between national and teachers from United States. During this time, private schools, which were located in Limón and in San José, started to come to the country and all of them taught ESL with their own textbooks that were used in the classes, as we can see in Escuela de Comercio Manuel Argón with the book *English for Beginners* brought from the “Escuela de los Estados Unidos.” Moreover, in 1936, ESL teaching got boosted thanks to the Convenio Comercial, a subscription between Costa Rica and United States. This achieved that plenty of new schools like Escuela Manuel Obregon, Escuela de Comercio Minerva, and Escuela Castro Carazco, offered English teaching with a proper capacitation in the areas that were more demanded by the country, as for example typing, shorthand in English and Spanish, accounting, and bookkeeping. At the same time, schools that taught English as Home High School, Union Negro Improvement Association School and the Escuela Barrio del Hospital were founded in Limón, according to the national records.

In addition, it was an exchange between teachers from United States and our country in order to get the national teachers to be specialized in the areas they desired to improve the development of teaching ESL. Around 18 teachers from United States came the country and covered English classes, while the national teachers went to USA to exchange experiences and learn more about the language. However, not all the teachers that covered English classes were specialized in the area, the students from these centers could interact with people which first language was English. It is important in the present

investigation to understand the antecedents of the English teaching and learning in Costa Rica, as well as to recognize its importance.

2.1.2.2 Current teaching situation, 2021

It is well known that during in the first half of 2020 till the present, the world got impacted by a very contagious illness called COVID-19. It is not a secret that it has changed the lifestyle of almost all the world, as no one wants to get infected with this lethal illness. As the news over the world have reported during the year, people from small, medium, and even big businesses lost their jobs or got their salary reduced. Moreover, many public places like parks got closed and important events got cancelled in order to avoid conglomeration. In addition, the area that matters the most in this investigation, which is the academic changed from a physic interaction in schools, rooms, etc. into virtual classes.

Virtual classes obviously represent a big change in the way teachers impart their lessons, since everyone depends 100% on an internet connection in order to be able to join the class or to wait until the teacher in charge gives all the topics through other medium. However, not everything is bad. Education is highly important to people in the world, because it is a human right and virtual classes surely fulfilled that need. This last statement can be confirmed by Li and Lalani (2020) in a recent post in the World Economic Forum, as they mentioned that “For those who do have access to the right technology, there is evidence that learning online can be more effective in a number of ways.” Some research shows that on average, students retain 25-60% more material when learning online compared to only 8-10% in a classroom. This is mostly due to the students being able to learn faster online; e-learning requires 40-60% less time to learn than in a traditional

classroom setting because students can learn at their own pace, going back and re-reading, skipping, or accelerating through concepts as they choose.

Nevertheless, the effectiveness of online learning varies amongst age groups. The general consensus on children, especially younger ones, is that a structured environment is required, because kids are more easily distracted. To get the full benefit of online learning, there needs to be a concerted effort to provide this structure and go beyond replicating a physical class/lecture through video capabilities, instead, using a range of collaboration tools and engagement methods that promote “inclusion, personalization and intelligence”, according to Dowson Tong, Senior Executive Vice President of Tencent and President of its Cloud and Smart Industries Group. It is evident that not all people can afford the resources for online classes. However, teachers must be on top of things to make sure all students can learn the best way and at the same time, students must give their best to take advantage of this great benefit for them. Hopefully, the current situation can get better in a near future. In the meantime, everybody needs to contribute with their best in order to make sure all this sacrifice is worth it. At the end of the day, everything happens with a meaning and a reason. This fight is for all people and the entire population decides whether win or lose.

2.1.3 Virtual Learning

In order to understand what virtual learning is, the following definition is found on the book *Bricks and Clicks* (Casale et al, 2020),

It is an environment, space or virtual classroom for training refers to a limited and recognizable place in cyberspace that has a defined identity and structure for educational

purposes. It is a virtual environment created with the pedagogical intention of stimulating, guiding, or supervising a learning process in a formalized way. (p.32)

The classrooms are understood to be cyber environments, in which students can connect either synchronously or asynchronously in order to fulfill their academic responsibilities. In recent years, virtual tools have been in constant growth. For the purposes of this research, it will be possible to observe the virtual classes of the students at Saint Michael School, and thus be able to evaluate the way in which these are carried out.

2.1.3.1 Virtual Learning Environments

For Ángel (2017), virtual learning environments are divided into two: Synchronous and Asynchronous Tools, and they can be defined as,

Those that allow users (in our case students and tutors) to communicate in real time, that is, the other people with whom I wish to communicate must be connected at the same time. And asynchronous ones are those in which communication does not take place in real time, therefore, the participants are not connected in the same space of time. (p.36)

Both, synchronous and asynchronous, virtual tools are of vital importance when it comes to learning, since it develops two different learning modes, of equal importance in a virtual environment. Thus, as in the present investigation, the use of synchronous and asynchronous tools in the virtual teaching of a second language are of great importance, so it will be considered which one best fits student when learning and understanding the subject.

Pierre Dillenbourg, Daniel Schneider, Paraskevi Synteta at University of Geneva, argue that virtual learning environments can be identified by the several features.

A virtual learning environment is a designed information space. We refer to the ‘architecture’ of information instead of ‘structure’ or ‘organization’ of information in order to emphasize the fact that the structure results from analyzing the functional requirements of the environment. For learning environments, the functional requirements are numerous and have not been yet systematically studied. (Dillenbourg et al., 2007, p.3)

In addition, it is well known that virtual learning environment is a social space: educational interactions occur in the environment, turning spaces into places.

A book can hardly be described as a learning environment. But, reading a book in a seminar, discussing with other students, writing a summary for the tutor, ... do constitute a learning environment. Similarly, a set of Web pages does not constitute a virtual learning environment unless there is social interaction about or around the information. Interaction can take many forms, including synchronous (e.g., chat, MUDs...) or asynchronous (e.g., electronic mail, forums,) communication, one-to-one or one-to-many or many-to-many, text-based or audio and video, or even indirect communication such as sharing objects.” (Dillenbourg et al., 2007, p.4)

What is specific to virtual environments compared to any information space is that it is populated (Dieberger, 1999). The users are inside the information space and see a representation of themselves and/or others in the space. As soon as, students see who else is interested by the information, the space becomes inherently social. Researchers have introduced the notion of “place” (Dourish & Chalmers, 1994) to emphasize that space has a social impact. Places are “settings in which people interact (Munro, Höök & Benyon, 1999). Moreover, “While spaces take their sense from configuration of brick, mortar, wood

and glass, places take their sense from configurations of social actions. Places provide what we call appropriate behavioral framing” (Dourish, 1999).

Dillenbourg et al, (2007) state that the virtual space is explicitly represented by proposing the following,

We do not restrict the definition of virtual learning environments to Web sites that look like computer games. The representation of the learning environment ranges from text-based interfaces to the most complex 3D graphical output. The key issue is not the representation per se, but what the students actually do with this representation. For instance, we observed that virtual space imparts on user’s behavior even when space is only described by text. (p.5)

They also explained that students are not only active, but also actors: they co-construct the virtual space.

In Web-based environments, learning activities range from multiple choice questionnaires to simulations and problem solving. Simulations can be considered as learning environments on their own. While originally restricted to physical models, now they cover a broad spectrum of domains such as economics, politics, biology... However, what is more specific to virtual learning environments is the set of activities within which students construct and share objects. Most often these objects are Web pages. Writing activities (producing syntheses, study reports, newspapers, ...) are very popular in schools. Students are not restricted to consuming Web information; they enter into the game. There is quite a difference between writing a critique of a novel which will be read only by the teacher, or which can be read by potentially anybody. (Dillenbourg et al., 2007, p.8)

Another important feature is that virtual learning environments are not restricted to distance education. However, “Web-based education is often associated to distance education, while - in the practice- it is also widely used to support presential learning. Actually, the difference between distance education and presential education is fading for several reasons” (Dillenbourg et al., 2007, p.12). Many distance education students do not live far away from the physical school but have tight time constraints (often they work). Therefore, asynchronous communication provides them with time flexibility, a growing concern in our society.

Many Web-based courses combine distance and presence, which makes learning environments more robust. Whatever technology is used, all tools have intrinsic limitations. These limitations do, over time, become real obstacles to learning. Even, a small amount of co-presence may solve some of the problems that can hardly be solved at distance. Examples are activities that require presence such as: launching a new project, complex technical assistance, repairing deep conceptual misunderstanding, negotiation. Moreover, for the purposes of this investigation, it will be possible to identify the virtual environments during classes through the teachers at Saint Michael School, observing some of the classes they receive virtually, and knowing the participants of the process in order to identify the variables interposed when receiving virtual classes and ways in which academic performance engagement can be improved during the virtual classes.

2.1.4 E- Learning

Whatever the subject, the eLearning industry is an enormous, modern-day opportunity to leverage-knowledge and generate income in an entirely new way. According to The Economic Times magazine, “eLearning is the delivery of learning and training

through digital resources. Although eLearning is based on formalized learning, it is provided through electronic devices such as computers, tablets and even cellular phones that are connected to the internet” (Bennett et al., 2020). Moreover, e-learning can also be defined as a network enabled to transfer skills and knowledge. The transfer of education that can be made to a large number of recipients at the same or different time and beneficiaries can get their classes whenever and wherever they want, which is one of its biggest advantages. It saves time, since it reduces travel time, and it is cost-effective since it reduces travel costs and printed materials. Therefore, for the purposes of this investigation, it is important to identify how eLearning is being applied by the professors at Saint Michael School by observing some of the lessons, as well as interviewing both professors and students.

2.1.4.1 eLearning History

Elliott Maisie, Host and Curator of many Learning and Development Seminars, Labs, and Conferences, coined the term “eLearning” in 1999, marking the first time the phrase was used professionally. It is important to bring out the fact that, virtual learning has improved over the years, as Paul Nicholson (2004), mentioned in his book *Computers and Education*. He stated that in the history of E-learning, it is important to note that there is no single evolutionary tree or single agreed definition of E-Learning. Since the 1960s, E-learning has evolved in different ways in Business, Education,

Training sector, and the Military; moreover, it currently means quite different things in different sectors. In the school sector, ‘E-Learning’ refers to the use of both, software-based and online learning, whereas in Business, Higher-Education, the Military and Training sectors, it refers solely to a range of on-line practices.

As Nicholson stated, the use of the term eLearning has historically had wider connotations that embrace a diverse range of practices, technologies, and theoretical positions. It is not only focused on online contexts, as it also includes the full range of computer-based learning platforms and delivery methods, genres, formats, and media such as multimedia, educational programming, simulations, games, and the use of new media on fixed and mobile platforms across all discipline areas. It is often characterized by active learner-centered pedagogies (e.g., Harel, 1991; McDougall & Betts, 1997). In addition, e-learning can be characterized as being driven by notions of improved productivity and cost reduction, especially in an increasingly globalized environment, with a focus on content delivery and online course management. These sectors initially employed the limited learning models extant at the time, but it has since moved to incorporate a diverse range of learning models and foci (Nicholson, 2004). Moreover, Campbell (2004) argued that,

Broadly, in industry settings, E-learning reflects an emphasis on informal and non-formal, just-in-time learning where the emphasis is on collaborative productivity. Whilst, in higher education settings, best practice online learning emphasizes the development of metacognitive skills, where the emphasis is on reflective and collaborative learning. (p.2)

E-Learning is not only a word used for virtual learning or online education, but it also involves different techniques, practices, technologies, and methods. Nicholson (2004) refers to eLearning by stating the following,

The use of the term E-learning has historically had wider connotations that embrace a diverse range of practices, technologies, and theoretical positions. It is not only focused on online contexts and includes the full range of computer-based learning platforms and

delivery methods, genres, formats and media such as multimedia, educational programming, simulations, games and the use of new media on fixed and mobile platforms across all discipline area. (p.11)

Online teaching is not something new as it has been in existence for many decades. However, its technology came not too long ago. Online learning provides space for college students to move with each other, and this creates another classroom, that is virtual. In the first goals of education, it can be found that the promotion of life-long learning, which implies that education should encourage individuals to require and gather information. Even outside school, students ought to have an interest in learning.

2.1.5 Approaches

Referring to different approaches that can be used by professors applying the eLearning, to choose the correct approach encourages instructors to focus on how learning exercises and assessments ensure that the course objectives are achieved. It allows teachers to figure out which materials are essential for students to achieve the expressed learning goals. In addition, it lets professors to choose what to add to the learning curriculum and what to leave out. Therefore, by doing this, instructors can make the learning process more productive, as their students would be able to focus on the things that really matter; in other words, to determine the ideal learning results, to evaluate these results, and to determine the classroom exercises and related course materials that are expected to obtain these results. For the purposes of this investigation, it will be possible to identify the Surface Backwards Design approach during virtual classes used by the professors at Saint Michael School, by observing some of the lessons that students receive. Moreover, the participants of the process will be known in order to identify the variables that interpose when receiving

virtual classes and ways in which academic performance and engagement can be improved during the virtual classes.

2.1.5.1 Surface Backwards Design

It is important to understand the definition of Surface Backwards design approach. According to Buehl (2000), it is “A method of designing an educational curriculum by setting goals before choosing instructional methods and forms of assessment.” In the book *Understanding by Design*, which was originally published in 1998, Grant Wiggins and Jay McTighe introduced us to backward design as “An approach to instructional planning that starts with the end goal, then works backward from there.”

There are some questions that should be answered when designing a course according to Richard V. Ross. The first one is, what should the students be able to do at the end of the course? This question will address learning goals and objectives for the course. The second is, how will the instructor measure if my students can do that? This enables you to develop a streamlined method of assessment. Finally, how will the instructor get my students ready for the assessment? This enables the instructor to put together a teaching plan or curriculum. Moreover, the backward design approach has three stages. These stages are defining the desired results, deciding proof of desired results, and planning learning modules and experiences.

The questions noted before can be turned into basic steps to follow. The first step in the backward design process is creating great learning objectives through clear statements that tell students the skills and knowledge they are expected to have at the end of the course. The next step is determining how the teacher will measure their skills and knowledge based on the learning objectives created. Whatever method of assessment the

teacher may choose, should be appropriate for the course and tailored to clearly show their understanding of the important part of what they are learning.

In addition, each assessment should be suited to their level; for example, if the teacher is creating an assessment for is an introductory level topic, its objectives are bound to concentrate on remembering past knowledge, answering questions about basic concepts, and linking both, old knowledge and the new basic concepts together, Finally, the teacher can now design streamlined training modules for the course. “Your training modules should be custom fitted to guarantee that students are prepared for assessments. Your teaching modules should be engaging because more engage your students are the more chances you will have to learn” Ross (2020, p.344). The backward design is often associated with the planning of a course as a whole, but it can also be applied to individual assignments/tasks and can be taught as a principle itself. Helping students to plan their work using backward design can be a valuable asset for them as they continue to develop their academic and professional skills.

2.1.5.1.1 History

Its highly important to understand how this approach started and how; for this reason, it is necessary to refer to Tyler (1949) when he introduced backward design referring to a statement of objectives. “A statement of objectives is used to indicate the kinds of changes in the student to be brought about so that instructional activities can be planned and developed in a way likely to attain these objectives.” The term "backward design" was introduced to curriculum design in 1998/99 by Jay McTighe and Grant Wiggins.

2.1.6 Teacher and Student Roles

In order to achieve the goals from a class under e-Learning, it is important to take in consideration the roles that both teacher and student, will fulfill. This will contribute with the fluency of the class because each instruction will be perfectly followed, and each topic can be successfully given. By knowing the roles from each member of the class, eLearning can be worked even better.

2.1.6.1 Teacher's role

Within the roles, as stated by the Ministry of Education, Guyana (2019), “Teachers play vital roles in the lives of the students in their classrooms. Teachers are best known for the role of educating the students that are placed in their care. Beyond that, teachers serve many other roles in the classroom. Teachers set the tone of their classrooms, build a warm environment, mentor and nurture students, become role models, and listen and look for signs of trouble.” The role of the teachers is critical in a classroom because they guide their students during each class, so they must take care about every movement and section they take. Moreover, the Ministry of Education, Guyana (2019) mentions that the teacher must have a curriculum, which he or she must follow; as with this, teachers will provide the knowledge to their students in an organized way. The teachers use the curriculum through the years in order to provide knowledge to the students and they can use many ways to provide it including a variety of activities like lectures, group activities, and hands-on activities.

Secondly, teachers must take care of the environment of the class being whether positive or negative. The teacher needs to manage a class with a happy and comfortable atmosphere, because students mimic their teacher's actions, so they will be happy if the class is. In addition, they are the main responsible ones from the behavior of

the entire class, because it is reflected by the actions that the teacher takes. In addition, it is very important to adapt each situation to the class, as there are students with special needs that may not learn in the same way as his or her classmates. If there is a case in which a student requires special help, the teacher in charge must take care of that situation in the best way, so the student can get the best experience when learning and can be able to reach all the objectives for the class. In this research, it will be possible to identify the teacher role during classes at Saint Michael School, by observing some of them, and analyzing the way in which the professor works to see if her role helps in order to improve academic performance and engagement in classes.

2.1.6.2 Student's role

On the other hand, as Professor Richard (2019) answers a question submitted by Luoyang Normal University, China:

Students must dedicate the class time into listening to what the teacher says in order to make sure they understand all, pronunciation patterns and organization of the words. Then, they need to repeat what their teacher says, so they can mimic every detail in order to speak as clear as possible in case they need to apply it into a conversation or speech. Lastly, students must ask and respond as many questions as possible, so they can have all the information clear and this will also help them perform with the best and dominate all the topics ready to apply them in what they need, whether for a unique school assessment and exam or life.

If students follow these steps during each session where the eLearning is applied, they will successfully fulfill all the objectives from the plan. For this, Professor Richard (2019) suggests some activities that teachers can use in order to achieve the roles of their

students in every class in which eLearning is used. Moreover, it is important to add that each activity must adapt to each level and ~~student~~ necessity of the students. Some of the activities that can be used in a given class

are drills activities, repetition activities, and question and answer activities. In this research, it will be possible to identify the student's role during classes at Saint Michael School, by observing some of them, and analyzing the way in which they work along with the professor to see if their role helps in some way to improve their academic performance and engagement in classes.

2.1.7 Virtual Tools

To start the topic of virtual tools, Alonso and Blázquez (2012) explain that virtual tools can be defined as "A computer system that supports virtual learning environments and allows the student to develop training through net" (p. 9). Moreover, according to what the authors expressed, it could be said that virtual tools are all tools used with an electronic device, meaning a computer, cellphone, tablet, etc., for learning methods. It is well known that 2020 was a year for transformation. Everything has changed, including the way kids and university students go to school.

During the pandemic, most of the world instated social distancing rules, 20-second hand-washing practices, and preventive mask-wearing in public. Therefore, to say this affected the way educators and students interact, is an understatement. In March, millions of children transitioned from face-to-face classrooms to some kind of virtual education set up at home. During the first months of the pandemic, teachers had to scramble and find the best ways to set up a virtual classroom that would keep their students engaged. During these months, educators at all levels tested tools and programs until they found their

favorites. This is how, in this research, virtual tools will be the elements to study to know their use in eLearning.

2.1.7.1 Virtual Tools in Learning

For Díaz and Svetlichich (2007), virtual tools in learning can be classified according to the roles they perform in the teaching-learning process in virtuality, which highlight the use of Open Educational Resources (OER), which was adopted by UNESCO in 2002,

Resources for teaching, learning and research, that reside in the public domain or have been published under an intellectual property license that allows their use is free for others. They include full courses, course materials, modules, textbooks, tests, videos, software, and any other tools, materials, or techniques used to support access to knowledge.
(p. 8)

Regarding virtual tools, computer programs such as resources, applications, help systems and virtual platforms can also be added, all influencing learning, teaching and research for students. It is important for the researcher to determine which virtual tools will be used as an instrument and the role that the tools carry in learning a second language.

2.1.7.2 Virtual Classes Platforms

In order to start with the topic of teaching online platforms, Lupión (2020) indicates that, “An educational platform or academic platform is a virtual program whose function is to create virtual spaces to share information. It is intended for teachers and students. It is widely used in universities and schools, both face-to-face and online” (p.59). It is understood that the platforms for teaching online are virtual programs in which academic information can be shared. Some are free software and others are created for profit. Access to these platforms can be granted to students, administrative staff, and teachers. There are

plenty platforms that can be used, all of them for different purposes. Professors can choose their preferred ones according to the topic they will teach and according to their audience. For the purposes of this research, the platforms used by the English teachers at Saint Michael School will be analyzed, by observing their development, and the participants in order to identify their effectiveness.

2.1.7.3 Didactic resources

In order to identify the variables involved in virtual classes, Oñate (2015) indicates that, “Didactic resources are fundamental instruments that complement the teaching-learning process. It should be noted that a teacher who does not use teaching resources in the classroom is an incomplete teacher, and her students will not learn in the best way” (p. 22). Moreover, it is understood that teaching resources are a fundamental part when giving classes, regardless of whether they are virtual or face-to-face. These help students to have a better understanding of the issues and can find support in this. Referring specifically of resources for virtual classes, we can have a large number of options and even for a specific subject or academic degree. For the purposes of this research, it will be possible to identify the resources for virtual classes used by the teachers at Saint Michael School, by observing some of the classes they receive virtually, and the participants of the process to identify the variables that interpose when receiving virtual classes and the difficulties that students face when adapting to virtuality in the English subject.

2.1.8 Repercussions in Learning

To start the topic of repercussions in ~~an~~ learning, Meza (2014) explained that

Learning results, for cognitive psychology, are always knowledge, defining knowledge as everything recorded in long-term memory. Knowledge can be declarative

(conceptual and factual, both having as a nucleus the knowledge of concepts), iconic or analogical, procedural (motor or cognitive), affective-evaluative and metacognitive or knowledge about knowledge or about functioning of cognitive processes when knowledge is acquired, retrieved, or used. (pp. 198-199)

The repercussions of learning, most of the times, will be shown as the acquisition of knowledge and its application, hence, the importance of good teaching and the methods used. Consequently, for the present investigation, the repercussions in virtual learning will be compared with face-to-face learning.

2.1.8.1 Repercussions on learning a second language

For Pastor (2004), the repercussions in learning a second language are defined as “(...) they can be the teaching of languages for professional purposes in companies and businesses, the legal-administrative language and that of tourist activities (...)” (p. 40). Moreover, Pastor highlights how the use of a second language can be beneficial at a professional and tourist level for people, and how it influences professionalism and one of the greatest requirements when obtaining a job, today. Moreover, in the present investigation, it is important the future conclusions and repercussions that are going to be obtained, hoping a benefit is obtained for the students.

2.1.9 Classroom Interaction

Interaction between teacher and students and among students is very important and required in the classroom activities when using the communicative approach, as it helps communication to happen in the classroom. It also supports the teaching and learning process to course efficiently. When the teacher and students, and students and students’

interactions happen, the instruction reaches the target, and the gap between teacher and students in the classroom disappears. Therefore, the teaching and learning process will be balanced between the teacher and the students. Not only the teacher who will be active in communication, but the students will also participate in the teaching and learning process.

As stated by Tickoo (2009), in classroom interaction and classroom activities, a productive class hour can be described as follows: 1. The teacher interacts with the whole class. 2. The teacher interacts with a group, a pair, or an individual student. 3. Students interact with each other: in groups, in pairs, by themselves or as a class. 4. Students work with materials or aids and attempt the assessment once again individually, in groups and so on. Furthermore, according to Ellis (1990), interaction is meaning-focused and carried out to facilitate the exchange of information and prevent communication breakdowns. Moreover, Brown (2015) stated that interaction is the basis of learning, through which learners are engaged both in enhancing their own communicative abilities and in socially, constructing their identities through collaboration and negotiation.

As stated by the regulation of the Ministry of Education number 23 (2016) about standard of assessment, learning is the process of interaction among learners, between 2 learners, and teachers and learning source in the learning environment. Because of it, the classroom interaction is needed. By interacting other learners and the teacher, learners will increase their language and social skills. It is important role of the teacher to make the teaching and learning process by designing the plan well. In terms of language learning, Flanders and Moskowitz (cited in Brown, 2001) categorized the language activities in the

classroom into 2 categories, namely teacher-talk and student-talk. The foreign language interaction (FLINT) model adapted from Flanders and Moskowitz (Brown, 2001).

2.1.9.1 Strategies of Promoting Classroom Interaction

Jia (2013) found that there are five strategies to promote classroom interaction. First, improving questioning strategies. The attention of the teacher to the learners can activate the teacher-learner interaction. The teacher should ask a question that can be answered by the learners; then the teacher adapts the questions to the levels or abilities of the learners, accordingly. The second strategy is attending to learners' linguistic level. The activities should propose different language level depending on the different learners. The used material reflects the exclusive needs of those learners at the level they have reached. Third, implementing cooperative learning helps in the development of learner's social skills. Cooperative learning means that every member of the group is included and differences among group member are resolved by the group members. Fourth, building positive teacher-learner rapport. Mutual respect between teacher and learners is an indispensable part of education. The dynamic qualities of classroom learning need the responsible from both, the teacher and the learner. Finally, reducing classroom anxiety. The teacher helps the learners to boost their self-esteem and self-confidence and create comfortable and non-threatening environment.

Papaja (2011) conducted a study for a period in one school year in a secondary school in Krakow, and in which geography, biology, and mathematic were offered in English. The result showed that all of the basic types of classroom interaction in Van Lier occurred. Meanwhile, the function of interactions cannot be noticed in CLIL. Choundhury (2005) conducted a study about Interaction in Second Language Classroom. The subject

was some researcher's view about how interaction takes place in a second language classroom and its importance. The result showed that making learners to actively participates as much as possible cannot be universally right, as not all learners learn best in the same way.

Bailey (1974) conducted a study related to classroom interaction pattern from student teaching to independent classroom teaching. The subjects of this study were nine teachers who were selected from 30 randomly selected secondary social studies teachers graduating from the University of Nebraska. The study found that first, the interaction pattern of the nine teachers changed significantly after two years of independent classroom experience. Second, the increased direct influence behaviors revealed that the majority of teachers became more indirect in their teaching style during independent classroom teaching. Moreover, Rafieerad and Rashidi (2010) conducted a study about analyzing the pattern of classroom interaction in EFL classrooms in Iran. The subjects of this study were 16 teachers, 8 female and 8 males, who taught-at intermediate level (lower and upper) at in Zhiraz University Language Center and Bahar Language Institute. They found that even the classroom discourse follows the IRF pattern, the teacher dominated a high portion of the classroom talk, the students did the exchange with the teacher and followed up their teacher responses to their questions, which showed the students and teacher talked in an IRF pattern.

Chapter III

Methodological Framework

Along this chapter, some characteristics about the technical characteristics that an investigation needs are going to be discussed. Moreover, some of the characteristics that need to be described within this methodological chapter, according to Martin Innes (2020) from the Oxford Scholarship Online, are the practices, procedures, processes, routines, conventions, theories, and techniques. The page describes these characteristics from a response of a police to a crime, but in for this investigation it is going to be related to what the investigator is going to use with the target population, who are the fourth graders at Saint Michael School. In addition, it is going to be notated and described all the instruments that are going to be used in order to gather all the information to get the results for the investigation, hoping that they will not also fulfill the objectives set, but also other results that will give more importance to the process. After setting the instruments, the results that the investigator wants to obtain are also going to be set in order to have a mental map of where the investigation will go and its importance.

3.1 Research Approach

In this part of the methodological framework, the three different research approaches will be described and their characteristics will be mentioned. The three research approaches that an investigation can focus on are qualitative, quantitative, and the mix approach, which is a combination of the first two. This in order to let the reader know what the investigation will focus on within the society that will take advantage of the results.

3.1.1 Qualitative Approach

According to Jonathan Beutlich (2020), as an answer to the question about what the two types of approaches in research are, the website e-notes explained that,

Qualitative research is descriptive in nature, because it generally deals with non-numerical and unquantifiable things. A biologist studying symbiotic relationships in nature, for example, would use qualitative research, because the scientist would more often than not be describing behaviors of animals. There might be some numerical data in that the researcher would document the number of observations; however, the observations themselves would be descriptive of what the animals do. Anecdotally, when students of mine are first learning about wave interactions, they have to do an experiment that asks them to qualitatively describe what happens when a wave through meets a wave crest.

As it can be seen, Beutlich (2020) talks about a scientific qualitative research about animals and biology. However, these same characteristics are applied to other investigation researches. This research approach is crucial for an investigation because its goal is to achieve the social objective of acquiring certain abilities that can be beneficial. This research approach does not worry about a specific number of people to study nor collects any kind of numerical data, but rather describes a whole society and tries to focus the study on behaviors and to apply new ones within society for their own benefit. This investigation takes benefit from this approach since the objective is to get the target population to improve engagement and academic performance.

3.2 Research Design

According to Hernández (2014), the research design is the strategies and the plans that the researcher used in order to gather information to solve the problem set for the investigation. The research designs that are going to be used are the action and the descriptive research. These are adapted to the methodology, the problem of the investigation, the time, and the budget that the researcher will use in order to get the experimentation phase done. Here, the investigator will describe each type of research and how they will be

adapted to the whole investigation.

3.2.1 Action Research

As the website research-methodology.net (2019) states, action research can be defined as “an approach in which the action researcher and a client collaborate in the diagnosis of the problem and in the development of a solution based on the diagnosis”. In other words, one of the main characteristic traits of action research relates to collaboration between researcher and member of organization in order to solve organizational problems.” Moreover, the website also mentions some features in order to use the action research in a better way. The first feature

is that this method is used for improving specific practices, and it is based on action, evaluation, and critical analysis of the practices and to improve those collecting based data. Finally, this research designed is used in this investigation because the researcher needs to evaluate the student’s engagement and academic performance.

3.2.2 Descriptive Research

The website [Formplus](http://formplus.com) (2020), in the article *Descriptive Research Designs: Types, Examples & Methods*, describes the definition of the descriptive research method within an investigation and also gives some characteristics in order to fulfill this method in the best way within an investigation research, that in this case is related to education. All this will let the reader know what the investigator wants to find out from the target population, who in this case are children from 9 to 11 years old at Saint Michael School, Costa Rica.

The website states that,

Descriptive research is a type of research that describes a population, situation, or phenomenon that is being studied. It focuses on answering the how, what, when, and where questions of a research problem, rather than the why. This is mainly because it is important

to have a proper understanding of what a research problem is about before investigating why it exists in the first place. Formplus (2020).

Some of the characteristics that the descriptive research must include in an investigation, according to the website, are described in a better way in order to understand them. The first characteristic is the qualitiveness, which relates to collecting qualitative information, as it is more explanatory. The next characteristic is that the variables are uncontrolled; this means that the researcher cannot control the variables since they are not numbers, but characteristics. Finally, and perhaps the most important characteristic, is that the descriptive research must allow other people to keep experimenting and analyzing the topic with other research methods.

This information can be considered because in order to get all the details for the experimental phase, the researcher must describe the capabilities and skills of the children from 9 to 10 years old at Saint Michael School to be able to get all the information for the whole research and the results. In addition, this investigation gives room for further analysis, since this same goal can be applied in other schools within the country and also the results can be analyzed in a more quantitative way. Activeness is related to collecting qualitative information, a qualitative research is more explanatory.

3.3 Information Sources

For gathering information, it is going to be used three main types of information sources. These information sources will let us know the background history and also the all the theory needed to fulfill the main objectives of the investigation. In this case, the research will need information sources about the history of English teaching in Costa Rica and definition of what E-Learning is and its origin, as well as information on different techniques and all its characteristics. For this, there are going to be 3 information sources,

Primary sources, secondary sources, and tertiary sources. The website LIS BD Network (2016) explains all of them in a more specific way.

3.3.1 Primary sources

Primary sources are original materials. They are from the time period involved and have not been filtered through interpretation or evaluation. Primary sources are original materials on which other research is based. They are usually the first formal appearance of results in physical, print or electronic format. They present original thinking, report a discovery, or share new information. The definition of a primary source may vary depending upon the discipline or context. (LIS BD, 2016).

Some examples are diaries, newspaper articles, and works of other people. These sources are used for regarding information that will be valuable for the results of the investigation. In other words, these will be the instruments that the person in charge of the study will use to evaluate the target population to eventually work on them depending on the objectives.

3.3.2 Secondary sources

Secondary sources are less easily defined than primary sources. Generally, they are accounts written after the fact with the benefit of hindsight. They are interpretations and evaluations of primary sources. Secondary sources are not evidence, but rather commentary on and discussion of evidence. However, what some define as a secondary source, others define as a tertiary source. Context is everything. The definition of a secondary source may vary depending upon the discipline or context. (LIS BD, 2016).

Some examples are bibliographies, commentaries from critics, magazines, and journal articles. These will help the researcher get all the theory, so all the aspects within the application phase can be validated with certain information and strong bases.

3.3.3 Tertiary sources

“Tertiary sources consist of information which is a distillation and collection of primary and secondary sources” (LIS BD, 2016). The examples of tertiary sources are dictionaries, encyclopedias, fact books, and manuals. These are a combination of both, primary and secondary sources. In other words, the tertiary sources are all the places or instruments where the information required for the investigation was taken.

3.4 Analysis Categories

In this section, the researcher will analyze all the variables of the investigation through a qualitative point of view. The details that will be analyzed are conceptual definitions. According to Hernandez (2014), this is important because with all the information placed here, the researcher can place the items of the instrument with a better precision, so that way the experimentation phase will be better.

3.4.1 Classroom Engagement

Even though, there is considerable variation in how classroom engagement is defined and measured, the term used by Jennifer Fredericks to describe it, is meaningful student involvement throughout the learning environment. Thus, classroom engagement is best understood as a relationship between the student and the school community, the adults at school, their peers, the curriculum, and the way in which instructions are given, student engagement can be measured with all the dimensions dynamically interrelated (J. Fredericks, 2004). For this research, it is important to know the concept, since the engagement of fourth grade students at Saint Michael School is an important factor that determines the level of educational achievement. It manifests itself in concrete and observable actions by the teacher, such as listening, asking for and gathering information, following instructions and carrying out activities. This will be measured through observations.

3.4.2 Academic Performance

According to Narad and Abdullah (2016), academic performance is the knowledge gained and assessed by marks by a teacher and/or the educational goals set by students and teachers to be achieved over a specific period of time. They added that these goals are measured by using continuous assessment or examinations results. For this research, it is important to know the concept, since it allows evaluating the effectiveness and quality of the educational processes of the fourth-grade students at Saint Michael School, which are the result of the efforts of the educational institution, but specifically of the teachers. In other words, academic performance is a measure of the student's abilities that expresses that a student has learned throughout the training process. This will be evaluated through the lesson plans by the researcher.

3.4.3 Virtual Classes

In order to understand what virtual classes are, the following definition is found in the website universidadviu.com (2020),

It is an environment, space or virtual classroom for training refers to a limited and recognizable place in cyberspace that has a defined identity and structure for educational purposes. It is a virtual environment created with the pedagogical intention of stimulating, guiding or supervising a learning process in a formalized way. (para. 1)

Virtual classes are understood to be cyber environments in which students can connect either synchronously or asynchronously in order to fulfill their academic responsibilities. In recent years, virtual tools have been in constant growth. For the purposes of this research, it will be possible to observe the virtual classes of the students at Saint Michael School, and thus be able to evaluate the way in which these are carried out.

3.4.4 Classroom Interaction

According to Ellis (1990), interaction is meaning-focused and carried out to facilitate the exchange of information and prevent communication breakdowns. Moreover, Brown (2015) stated that interaction is the basis of learning, through which learners are engaged both, in enhancing their own communicative abilities and in socially, constructing their identities through collaboration and negotiation. For this research, it is important since the interaction in the class will help the fourth-grade students at Saint Michael School to improve academically and their social relationships, as they will find in other classmates' people who share their concerns and will prepare them for the task. Lack of interaction can be a matter of shyness and lack of self-esteem.

3.5 Data Collection Instruments

In order to fulfill the objectives of this investigation, there are three instruments that will help the researcher to achieve the goals. In this case, the population under study are the fourth graders at Saint Michael School, located in San José, Costa Rica. Moreover, the instruments will be used to gather all the information possible. The instruments that are going to be used are going to be one interview, a lesson plan, and a test in order to know if the students can successfully understand all the information in the classes in which e-Learning was applied and also, if academic performance and engagement were improved.

3.5.1 Interview

By doing an interview to the fourth graders' teacher at Saint Michael School, we can determine what kind of difficulties students face while adapting to virtual classes. The questions are going to be focused on their engagement during the lessons, as well as their academic performance. The first section will be to know if the students think that teachers were prepared to teach through a virtual modality. Then, the second section will let the researcher know how the students went through the process of adapting to eLearning by

taking into consideration their emotions. Finally, the last section of questions is going to be regarding the engagement and interest during virtual classes, taking into consideration their performance.

3.5.2 Class Planning

In order to make the target population learn things during virtual classes, while improving academic performance and engagement, they will need to receive a class. In total, the researcher is going to teach 3 classes to fourth graders at Saint Michael School. Both classes will have a plan with all the strategies and a specific plan for each session in order to be able to analyze a progress of the students within those 2 classes. All the plans will include the objectives and the topics that the teacher in charge will need to cover during the week the investigator will work with them, but with the difference that all the planning is going to be adapted to eLearning using its approach.

3.5.3 Observation

In the last class that is going to be imparted, within the activities for that day the researcher will observe the whole process of experimentation. The observation will help the researcher to evaluate the students' performance during virtual classes, as well as their engagement during the activities previously planned by the researcher.

3.6 Collection Data Process and Data Analysis

In the last section of this chapter, there will be a general idea of how the data from the investigation will be collected and analyzed. The instruments that will be used in this investigation are going to be in charge of collecting all the data needed from the fourth graders at Saint Michael School in order to get all the results from the experimentation phase. Once the data is collected, it needs to be analyzed by the researcher to comprehend and acknowledge the scopes that the investigation could achieve. After this analysis is

done, the results that are going to be gotten from the investigation can be set, so that way the researcher will know how important the experimentation was for the children at the school that the researcher will visit to continue the practice.

3.6.1 Steps to get the data and analyze it in order to get the results

First of all, an interview will be done to the teacher in charge. This will be applied face to face in the school, and all the answers will be written down. By doing this, it can be discovered how much the teacher knows about E-Learning and its application in class, as well as the changes she has noticed on her students while they are adapting to virtual classes. This interview is scheduled on May 31st, 2021. After reviewing the answers from the teacher, the researcher will know if some feedback regarding the method, its techniques, and how it works will be needed in order to give the teacher a preview of what the investigator wants to do with her class to make sure every detail will be covered successfully in case she does not know the method that well.

Secondly, 3 classes will be given. Those classes will be carefully planned in order not to improvise and to make sure everything will go smoothly. The class plans will be adapted to eLearning and will include three main parts: objectives, activities, and assessments followed by the topic that the teacher will need to cover in that period. Since the students are receiving their lessons in a hybrid way, the plans will be created taking into consideration that half of the students are in the class, while the other half is in a virtual mode. At the end of the 3 sessions, the researcher will evaluate how the students reacted to the method and whether or not they are learning in a better way and are getting motivated and engaged during virtual classes. Each lesson will be 40 minutes long, scheduled to be done on June 7th, 8th and 9th following their schedule and the annual planning they have designed since the beginning of the year. In this way, the researcher can implement the

eLearning within the target population to see how they will react in a real situation.

Finally, in order to make sure that the students learned and acknowledged all the skills they must acquire to be more engaged during lessons and improve their academic performance, it will be a second observation and a survey. The second observation is scheduled on June 15th, and the survey will be applied on June 18th. After applying the survey and analyzing the answers of the students, the investigator will know how and what exactly they have learned and if they improved their academic performance, which is the most important goal of the investigation; in other words, applying eLearning with appropriate techniques for the level.

Chapter IV

Data Analysis

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 analyzed. With this analysis, all the data collected will lead with the conclusion of the whole research, as this can relate the information stated in previous chapters with real life evidence. Consequently, the data provided by each instrument will be mentioned and analyzed. After analyzing the results, proper conclusions and recommendations can be taken out to do better in future related researches.

4.1.1 Interview

With the interview, the investigator could know how much the teacher in charge of the children from 9 to 10 years old at Saint Michael School knew about eLearning and its different techniques, as well as to find out if there has been any change in their academic performance. In this case, one teacher was interviewed. Through the answers, the teacher demonstrated that she knew about the topic and that she often included this method within classes. This also could be demonstrated after observing the first bimodal classes that she imparted. This led into a better interaction with the students with whom the researcher will work. Moreover, the teacher also explained that the school's objective was to form bilingual students. For this reason, the teachers were actually trying to improve the students' academic performance and interaction during bimodal classes.

Answers of the Interview

These were the questions and the corresponding answers given by the interviewee.

First, it is important to present the questionnaire given to the teacher. The next step was to analyze the answers given by the interviewee. Here, the researcher will present the answers and one short analysis of these answers in connection to her research. These are the questions, the answers, and their corresponding analysis:

Question #1: For how long have you been teaching at Saint Michael School?

Teacher: For 5 years, now.

This means that the teacher already has enough experience working in the school and knows the way in which students learn and their academic performance.

Question #2: For how long have you taught this group?

Teacher: Hmm, I have had this same group for couple of years, when they were in second grade. When everything was normal, and the pandemic did not exist. But I wasn't their teacher last year.

This means that although the teacher did not work with this group when there was a change from face-to-face classes to bimodal classes, she knew this group before, so she can compare their attitude and academic performance before and now.

Question #3: In previous years, have there been problems of absenteeism?

Teacher: No, nothing at all. Both, students and their parents have always been very responsible.

This answer means that, although the way in which students have received their classes changed from face to face to hybrid, parents take very seriously their education and students do not quit their studies.

Question #4: Do you think that virtuality came to affect the teaching process?

Teacher: Uuuhhh hahaha, I am still looking for answers. But I think it is like a 50/50. There are good things and bad things.

This means that virtuality came to change everything, as there are good and bad things about it. They have learnt new things, but there also have been difficulties during the adaptation process, for both students and teachers.

Question #5: According to your perception, do students prefer virtual or face-to-face classes?

Teacher: Of course, they prefer face to face classes. They need their classmates, school, and teachers.

This means that students need the social part. They need to spend time with their classmates and teachers, as well as to interact with more people while studying. They are kids and have the necessity to play, run, and talk face to face with their friends.

Question # 6: What difficulties have you had with virtual classes?

Teacher: Adapting to technology has been my biggest difficulty. I graduated a lot of years ago and I was used to boards, chalks, and papers. You know. I don't know how to use a computer very well.

This answer means that this huge change from face to face to hybrid classes brought difficulties not only for students and their parents, but also to teachers who were not used to technology, and that always have worked in the same way. This changed the way in which they were used to plan and had to start thinking about online activities for the students.

Question #7: What challenges do you find in virtuality?

Teacher: Technology was always the worst part. As I already told you, getting used to internet, cables, websites, digital books, and Zoom was the most difficult part for me.

As stated before, with this answer, the researcher noticed that the biggest challenge for the teacher was the use of the technology when going from face to face to hybrid classes. They were used to the old teaching methods and techniques and, at first, they did

not know how to fit it into the virtual classes. They had to take into consideration both, students at school and in the classroom, and the fact that all activities should be done by all of them.

Question # 8: Do you think that students are affected socially as they do not interact with their peers?

Teacher: Uuuff, of course! They are becoming more introverted and shier. They prefer to be silent instead of opening the microphones and talk. Although, they are more technological, their social part was always in the school, when face to face with their classmates and friends.

This made evident that the social part was affected due to the change they faced. They are children who were used to socialize with their friends every day in the school. They liked to spend time with the rest of their friends. Children need contact and face to face interaction.

Question # 9: Do the students understand why the class modality was changed? Did you explain the reasons to them?

Teacher: Yes of course, we explained to them about the pandemic, but I know some of them were confused, at first. They are mature enough to understand what was the reason why we had to change.

With the answer given, it is demonstrated that the teacher had the opportunity to explain to her students the modality change, and the majority understood.

Question # 10: Has participation changed during classes?

Teacher: Yes, a lot. Specially in this group, I remember they were very participative and talkative before. However, now I have to call their names in order to get an answer

from them. They don't want to participate. There are days in which they prefer to turn off their cameras and microphones instead of giving an answer.

With this answer, it is demonstrated that participation during classes has decrease. Students are not motivated to turn on their microphones to talk or give an answer.

Question #11: Has class development been affected due to lack of student participation?

Teacher: Uff, of course. It is very difficult to give a class smoothly without students' participation and interaction. As they need me to explain them the topics, I need them to participate and talk during my classes. Just imagine an English conversation class without an actual conversation... It's very difficult.

With the answer given, it is demonstrated that the development of the classes has been affected due to lack of participation. The teacher needs students to interact in her classes in order to complete the classes smoothly.

Question #12: Has the classroom interaction changed after the adaptation to virtual classes? How did this happen?

Teacher: Yes, they don't want to interact among them nor with me. This happened little by little. I assume this was because they feel lonely in their houses without their classmates.

This means that the classroom interaction changed after the process of adaptation from face to face to hybrid classes.

Question #13: Has the student's attention been affected during classes? Explain.

Teacher: This depends on the activities I plan for the class. There are some activities that engage them more than others. So, they pay attention when they like the topics or activities.

This means that the activities planned by the teacher are very important in order to get students engaged and participating during classes.

4.1.2 Observation

In order to analyze the changes students had when adapting from face to face to virtual/hybrid classes, an observation was done. The researcher observed two classes, the first observation was done in 2020, when all the students were attending the school. This observation was done before the pandemic. The second observation was done during hybrid classes, in 2021. With the observations, the investigator could compare and notice if there was any change in fourth graders after their regular face-to-face classes were modified.

While observing the class, the investigator was verifying through a checklist students' attitudes and capabilities to analyze them later.

4.1.2.1 Pre-virtuality Group Observation

The class observation was done in February 2020, the class started at 7:45, the teacher came to the classroom and greeted her students, two girls came up to her and hugged her happily. The teacher hugged them tighter and told them that she missed them during the weekend. The teacher started with their daily routine, which included taking attendance and a little prayer. Then, she asked the students about their days off, she asked them what they did during their weekend, creating a conversation. After having talked a bit, the teacher got up and introduced them to the topic they were going to study, which was the Present Progressive Tense. The teacher asked them two introductory questions. Guys, do you know what the Present Progressive is? Do you know when to use it? Some students

mentioned that they already knew the topic and gave some examples, generating a little conversation; while others turned to see each other very confused because they did not remember having studied this topic before.

The teacher began to explain the topic by posting some colored papers with sentences on the whiteboard and teaching them step by step the structure they had to follow. After several examples and having explained the topic, she asked the students for more examples and asked them to explain to the rest of their classmates the structure of the sentences they were forming. One by one, the students came to the board to create their sentence. While this was happening, there were some students in the back of the class, in a group, with a cell phone, watching some videos, and not paying attention. The teacher repeatedly asked them to please take their seats and pay attention and if not she was going to confiscate their cell phone, they immediately separated, put the phone away, and sat in their respective seats. At the end of this activity, and as an extra practice, the teacher told them that they were going to play a game. Therefore, she gave each student the picture of an animal or person doing different activities and told them that in different places in the school they had to look for words to form a sentence that described the picture that was given to them earlier. Moreover, the students had to use the correct structure and use what was explained to them.

The teacher counted to three and the students screamed and ran to find the words they needed to create their sentences. One by one, they were entering the classroom, competing among themselves to see who came first and complied with the teacher's request. After approximately 15 minutes, all the students were in the classroom, passing desk by desk to see who had managed to create the sentence. Only two students could not find the necessary words to complete the assignment. The students ended up very happy,

and even exhausted and sweaty from searching around the school. They were talking to each other about the experience they had when they left the classroom to complete the task. Due to their excitement and energy, the students began to raise their voices; consequently, the teacher had to ask them to be quiet in order to review what they did. The teacher called the students one by one to show the picture and read the sentence they made. Most of the students completed the assignment successfully, while others still did not apply the structure correctly. After seeing this, the teacher reviewed the topic and reminded them of the structure. Later as the class was almost over, as it was almost time for lunch, the teacher asked them to put away their books and notebooks and gave them permission to go eat their lunches or buy food if they needed it. Students quickly put everything away and went to the food areas. When they finished eating, many of them started playing hide and seek, soccer, or one, two, three cheese.

4.1.3 Class Planning

In order to get students more engaged during virtual classes, 3 classes were planned using eLearning techniques with activities that could catch students' attention, following the format asked by the school, as well as the topics that the students should study by this period. With this, student's participation and engagement would increase. The lesson plans included objectives for each skill that should be practiced, a warmup, activities, and assessment in order to evaluate them. There were 18 students in total. Throughout the classes, students did appreciate the patience and dedication of the researcher and the new activities that were brought. Some of the students that did not talk at first, started to be more confident about themselves. This made evident that the lesson plans were working for all students. Techniques and activities in lesson plans needed to be adapted to each student,

so all could fulfill the objectives.

On June 7th, the first class was taught. There were 18 students in the class, half in the classroom and half via Zoom platform. The topic was the reading Jane and Joe's Extreme Mexico and there is/there are. To start, the researcher stated the objectives; these were to identify main idea and details to aid comprehension and to use there is and there are. The first objective was intended for the reading and the second one, for the grammar skills. The activities that were included in the class addressed the objectives and could help students to fulfill them. The activities that the researcher brought were the following. For the reading warm up, students had to take out a Post It and decorate it with as much color and shapes as they wanted. Afterwards, students had to create a butterfly origami with it. It was observed that the students liked this activity and gave them the opportunity to interact more with each other and with the teacher. They were creating the origami one by one and not all of them had the ability to do it correctly; therefore, they had to ask for help and talk in order to complete the task. Although, they had to work individually because of the situation that the world is facing, students had the chance to learn and interact.

As activities, students had to remember and give some facts about monarch butterflies. They also had to read a text from a handout called "Monarch Butterfly." In this activity, students did a brainstorming and gave the facts asked by the teacher. They participated a lot because they tried to reinforce the facts that their classmates said before by adding more information. They even interrupted each other to come up with more ideas, which meant that participation and interaction increased.

As assessment, the students had to copy some questions in their notebooks and after that, answer them. Here, students worked individually. When they finished answering the questions, students had to glue the origami and paste it in their notebook. When they

finished this activity, students kept talking about these activities as they were very motivated and happy, they shared with each other their answers and origami. Through this, it was observed that students felt more comfortable with this kind of activities and made them interact more.

For the grammar warm up, the topic was reviewed with a song. Although, lessons were hybrid, they really enjoyed it. They were even singing and clapping. Some of the students who were virtual opened microphones just to do so, some of them laughed because of their classmates were singing. This created interaction among them. Moreover, in the activities, the students had to ask-questions, as they had to ask each other if they had something in their houses. The ones who were at school had to ask the ones who were at home. This created participation and interaction, as students talked a lot, and even helped each other to use the correct structure for the sentences they had to create. To evaluate students' performance, they had to work in an online worksheet, and at the end, they shared their answers.

With the lesson plans, which are attached to the annexes, the classes in which the investigator interacted with the target population (students from 9 to 10 years old at Saint Michael School) could be more organized and, all the times, could be managed. In this way, the students learned all the objectives in a more dynamic way and included more than one ability to complement their learning. In addition, those students got engaged and interacted more, which was one of the main goals of the investigation. Moreover, the researcher gave more than one class to prove the effectiveness of eLearning and its application in this school in Desamparados. In general, the researcher performed her classes successfully during the days she could stay with the students. The great majority of the students performed excellent during the activities and learning the topics, which showed that the use of

eLearning could give positive results in their academic performance.

4C group observation (Hybrid Modality)

They were 18 students. There were 10 girls and 8 boys, who ranked between 9 to 10 years old. All of them were respectful and seemed to have a very good behavior. Something the researcher was able to notice while observing them, was that they did not participate. They talked a little bit, but they did not talk in English. The teacher had to call them several times to participate and reminded them that it should be in English. They spoke and participated only when discussing about something that called their attention, and by the way, they had very varied interests. For all the subjects in the English language, the teacher used different strategies and techniques. For the speaking part, it was not allowed to talk in Spanish, they could ask the teacher to translate some words, but they were not allowed to speak in Spanish. Despite of that, for most of the 4C students, it was very difficult to communicate in English. It was observed that they were actually very good at English, the problem was that now they were very introverted and timid.

While observing the teacher, the researcher noticed that she used different kind of activities in her classes, such as online games, presentations, videos, songs, etc. With this, the methodology implemented was the one of multiple intelligences. She always did hands-on activities in every class, so students could develop their fine motor skills. Furthermore, students enjoyed the hands-on activity and they learned a lot. Besides these activities, students also work on their books, notebooks, and platforms. It was observed that although the students did not like to participate much and they were not interacting with each other or with the teacher, they were completing their tasks and assessments.

This group was well-behaved, as the majority of the students remained in silence while the teacher was speaking or giving instructions. During class activities, whether

virtual or in the school, students completed the activities in the allotted time. After applying the before mentioned instruments, the researcher will analyze each one of them and conclude if there is any way to improve academic performance and engagement during hybrid lessons through eLearning. Analyzing these results will be helpful for the teacher and students at Saint Michael School because they can implement this learning method and its techniques.

Chapter V

Conclusions and Recommendations

5.1 Purpose of the conclusion

It is not a secret that in order to wrap up an investigation report, some conclusions are obtained. According to the Sacred Heart University (2020), conclusions are the result of the main arguments stated on the theoretical framework of each research. This means that with the conclusions, the researcher will prove and demonstrate the effectiveness of; the instruments used, if they worked as planned, and if the target population could take advantage of those results. Further in this chapter, a detailed description of the conclusions of the whole research will be pointed out objective by objective, as well some recommendations in order to make sure that future researchers following the same methodology can be able to apply or carry out the investigation with no fails or setbacks.

5.2 Conclusions

As stated before, a detailed description of what was gotten from the investigation will be detailed objective by objective. In that way, all results can be analyzed in a more organized and better way. With this being said, the following conclusions were determined after finishing the whole investigation process.

5.2.1 To identify the difficulties students face while adapting to virtual classes

After observing the students and asking them several questions, it was concluded that they faced several difficulties while adapting to virtual classes. Some of those challenges easier to fix, whereas some others needed more time and different methods. After applying eLearning in their classes and creating a lesson plan with activities that caught more their attention, it was observed that the difficulties they had during virtual

classes could be switched into opportunities. Although, students have been dramatically affected by this change, they must understand that an important part of life is learning to adapt to the circumstances.

5.2.2 To apply eLearning methodology to improve academic performance and engagement on virtual classes

From this objective, the conclusion that was reached was that certainly, the eLearning methodology helped the target students, as based on the results obtained, students got engaged more on their classes. In addition, both the class observation phase and the correct techniques adapted to each student, allowed the researcher to reach them and to make sure they would fulfill all the objectives for each single class and, consequently, to improve their current English skills into a more fluent and clearer one. Within the techniques used, students enjoyed the most the online activities, as they were much more motivated, and this obviously helped them to interiorize better what they have learned.

5.2.3 To determine students' performance outcome during virtual classes after the application of eLearning methodology

Throughout the investigation of the theory that supported this research, it could be found that the by applying the eLearning methodology and by including in the curriculum more attractive activities to the students, their academic performance can be improved during virtual classes. It is important to take into consideration that the change from face to face to hybrid classes was a big adjustment for students at Saint Michael School, but ever since eLearning was being applied there was a huge change in their performance outcome.

5.4 Restatement of the Research Question

For this research, the problem that the investigator decided to solve was how to strength classroom engagement and academic performance in virtual classes by improving

classroom interaction on fourth graders at Saint Michael School during the second quarter of 2021? After the whole research was carried out and with the help of the instruments set for this project in order to improve classroom interaction, the researcher needed to take into consideration the background of the target audience to know how to implement methods that involved the students in their classes in a way in which they could improve their academic performance, as well. In this case, with this specific target audience, their improvement at the time of implementing eLearning, was notable.

5.5 Unexpected Results

Throughout the experimental phase, many results were found when working with the target population, which in this case were children from 9 to 10 years old at Saint Michael School in Desamparados, Costa Rica. These results were satisfactory because it could be proven that the objectives of the research could help the target population and set a new beginning for the students, as well as the teachers. Therefore, some of the most meaningful unexpected results will be mentioned. First, within the unexpected results, it is necessary to remark that students reacted better than expected because at the beginning, when the observations were done, students were more reserved and shier, so their speaking skills were very poor, even in advanced levels. However, by carefully choosing the activities and methodologies applied within the lesson plans, students were more committed to orally express their ideas and interact more among them and with the teacher, as well. In addition, they also learned how to implement the different rules and structures used in this marvelous language.

Moreover, students really appreciated the effort that the teacher did. This because they did not manage to interiorize all topics at first, but with patience and more techniques, they were able to really learn and apply all that knowledge. This led students into having a

more open mind, and improving the acquisition of future knowledge regarding more complex topics. Last but not least, students at Saint Michael School showed even more commitment to learn as they improved their level of understanding after interacting with the new implemented techniques within the methodology. At the beginning, the students who did not participate at all, were the ones who ended up participating the most. This shows that with the correct approach, students who could seem a “basket case,” for some, were able to show their true potential, even when the topics were-not interesting for them.

5.6 Recommendations

First, it is very important to establish rules in the class, although it is virtual. This includes discussing topics such as appropriate attire, when to be on mute, when to use the chat and how to use it, raising their hand to participate, use of virtual backgrounds, how to clap, and what to do when classes are recorded.

Then, recommendation for the teacher is to create accessible content and material. This means, reducing barriers of comprehension, ensuring that all content shared is accessible to everyone, including those with disabilities.

Also, to English Teaching career future students, try to create agreements between companies and schools with the aim of providing the necessary tools to the students of scarce resources.

Finally, in order to make students’ participation and classroom interaction increased during virtual classes, it is important to take into consideration activities that motivate them. As children, they need to learn in a way in which they like it. Consequently, because of the situation we are living, it is even more important to create an environment in which they feel relaxed, and lessons can go smoothly

Annexes



**Saint Michael
School**

Student: Arlette Lescouflair Madrigal

This interview was created for Saint Michael School fourth graders ‘teacher for the investigation Strengthen Classroom Engagement and Academic Performance in Virtual Classes by Improving Classroom Interaction on Fourth Graders at Saint Michael School during the Second Quarter 2021.

Objective: To examine how classroom engagement and interaction changes through virtual classes

The interview will be applied face to face in the school. The interviewer will ask the questions to the teacher and write her answers by hand.

- 1. For how long have you been teaching in Saint Michael School?**
- 2. For how long have you taught this group?**
- 3. In previous years, have there been problems of absenteeism?**
- 4. Do you think that virtuality came to affect the teaching process?**
- 5. According to your perception, do students prefer virtual or face-to-face classes?**
- 6. What difficulties have you had with virtual classes?**
- 7. What challenges do you find to virtuality?**
- 8. Do you think that students are affected by the sociability part by not relating to their peers?**

- 9. Do the students understand why the class modality was changed? Did you explain the reasons to them?**
- 10. Has participation during classes changed?**
- 11. Has class development been affected due to lack of student participation?**
- 12. Has the classroom interaction changed after the adaptation to virtual classes? How did this happen?**
- 13. Has the student's attention been affected during classes? Explain.**

Observation Checklist



Saint Michael
School

Date: **Subject:**

Teacher: **Grade:**

Observer: **Group:**

Criteria	Observed	Not observed
There is a positive relationship among students and teacher.		
Most students appear aware of and understand the learning goals.		
Teacher encourages students to participate during the lessons.		
Students show cooperation during the lessons.		
Students participate actively during the lessons.		
Lesson activities are planned taking into consideration all the students.		
Teacher takes advantage of virtual tools.		
The lesson takes advantage of technology innovations		
The class has more opportunities for a varied learning experience		
Students interact with the rest of their classmates.		
Students show participation during the lesson.		

Second Observation Checklist



Saint Michael
School

Date: October 6th, 2020

Subject: English

Teacher: Shirley Chinchilla

Grade: 4th

Observer: Arlette Lescouflair

Group: 4C

Criteria	Observed	Not observed
There is a respectful relationship among students and teacher.	X	
Students are aware of the rules.	X	
Teacher encourages students to participate during the lessons.	x	
Students show cooperation during the lessons.	x	
Students participate actively during the lessons.	X	
Lesson activities are planned taking into consideration all the students.	x	
Teacher takes advantage of virtual tools.	x	
The lessons are developed through a virtual environment	x	
The class has more opportunities for a varied learning experience	x	
Students interact with the rest of their classmates.	X	
Students show participation during the lesson.		

Weekly Guide

Teacher: Shirley Chinchilla / Arlette Lescouflair

Level: 4th

ENGLISH	ASSIGNMENTS
Expected Learning	
<p style="text-align: center;">Reading</p> <p style="text-align: center;">Jane and Joe´s Extreme Mexico</p> <p>To distinguish between main idea and details.</p> <p>To identify main idea and details to aid comprehension.</p>	<p>Warm up: Ask students to take one Post It out and color (decorate) them with as much color and shapes as they want to, they can draw hearts, circles, lines anything. With that paper students will made this butterfly with origami technic https://youtu.be/Pw1Hdz6a0tE</p> <p>Activities: Ask students if they remember or know facts about butterflies, if they remember the specie we read about last week, teacher will write ideas on whiteboard. Read printed text “Monarch Butterfly”.</p> <p>Assessment: Students copy and answer the following 4 questions on their notebooks: 1. Where does the monarch butterfly spend spring and summer? 2. What does the butterfly do during winter? 3. What is the only food monarchs eat? 4. Why is it impossible for butterflies to stay in México? Finally, students glue their origami butterflies.</p>
<p style="text-align: center;">Grammar</p> <p style="text-align: center;">There is/There are</p> <p>To use there is and there are.</p>	<p>Warm up: Review with students this topic with the song at https://youtu.be/ZjhOgnROluo</p> <p>Activities: Students will play asking questions</p> <p>Face to face student ask to someone at zoom are there / is there questions about objects at home. Someone in zoom ask about objects in the class using the same grammar structure. Repeat dynamic to review questions.</p> <p>Assessment: Virtual class: will work on this online practice https://www.liveworksheets.com/na601gy</p>

	Face to face students: Use the picture of the fridge, students will create 8 sentences, 2 affirmatives and 2 negatives for “there is” and 2 affirmatives and 2 negatives with “there are”.
<p>Spelling</p> <p>Review spelling</p>	<p>Warm up: Teacher will ask to students to write as many spelling words as they can remember from the past lists. Write on the chat.</p> <p>Activities: Show to students this WordArt https://wordart.com/lqg02b2pcv11/word-art teach students how to use the site since the coming weeks they will work spelling in this one https://wordart.com/ . Teacher will bring tablets for students in the class.</p> <p>Assessment: Teacher will complete missing pages of spelling from book 1.</p>
<p>Conversation</p> <p>If I had Super Powers!</p>	<p>Warm up: Students vote in Mentimeter and enter the code 6494 7598 “Would you rather?” to see what superpower they choose. Students in the class will use tablets.</p> <p>Activities: Students will make a brainstorm discussing what superpower is the best for them. They have to decide one at the end.</p> <p>Assessment: Students will draw a superhero as the one shown here, inside the super hero they will write at least 7 sentences</p>

<p style="text-align: center;">ENGLISH</p> <p style="text-align: center;">Expected Learning</p>	<p style="text-align: center;">ASSIGNMENTS</p>
<p style="text-align: center;">Reading</p> <p style="text-align: center;">The Queen of Pepper Road High</p> <p style="text-align: center;">Causes and Effects</p> <p>To understand the connection between cause and effect.</p> <p>To identify cause and effect in a text.</p>	<p>Warm up: <u>Face to face students:</u> On whiteboard teacher will write “Today I decided to wear my sweater” and will ask to students why, write answers on whiteboard. Write “I will go to the dentist this afternoon” ask why again.</p> <p><u>Virtual students:</u> students access Pearson platform to see Envision It video with the reading strategy.</p> <p>Activities: Check presentation “Causes and Effects – Fairy Tales”. Explain to students what are causes and effects. To finish the topic, have students watching video https://youtu.be/crSZOILAI-M</p> <p>Assessment: Students copy summary with the illustrations on their notebooks. Work on page 32.</p>
<p style="text-align: center;">Reading</p> <p style="text-align: center;">The Queen of Pepper Road High</p>	<p>Warm up: Check words to know with students. Access to Pearson Platform to review meaning and pictures.</p> <p>Activities: Play online games available in the platform.</p> <p>Assessment: work on page 33</p>
<p style="text-align: center;">Grammar</p> <p style="text-align: center;">Common and Proper Nouns</p> <p>To identify and use common and proper nouns.</p>	<p>Warm up: Teacher will make a poll asking students about their pets, will ask what kind of animals they have and then under each type write the names of the pets.</p> <p>Activities: Explain to students the topic. Do these quizzes with all students https://www.softschools.com/quizzes/grammar/noun/quiz295.html and https://www.grammar.cl/english-games/common-nouns-proper-nouns.htm</p>

	<p>Assessment: Work on pages 34, 41 and 197.</p>
<p>Writing</p> <p>Writing a Postcard</p> <p>To write about past and future events by writing a postcard.</p>	<p>Warm up: Go to Padlet https://padlet.com/shirleychinchilla14/bossun49tw0g0a2c show them how to use the platform if they don't already know. Students will write where they would like to go during a holiday. Teacher ask for tablets, if not available teacher will do the Padlet activity with post its.</p> <p>Activities: Ask students if they have sent a letter before. Tell them they will learn to write a special letter that are sent during holidays. Watch presentation about postcards.</p> <p>Assessment: On their notebooks, students will write the parts of the postcard. Info is taken from presentation.</p>
<p>Conversation</p> <p>If I had Super Powers!</p>	<p>Warm up: watch video https://youtu.be/l4Wv3J2trMs</p> <p>Activities: have students talking about which is the best superhero and why.</p> <p>Assessment: Students and teacher will review sentences they wrote last week, they will memorize their lines because they will record themselves and sent video to the teacher (this short video will be evaluated as Home Study). Coming week, we will see videos during class.</p>
<p>Spelling</p> <p>The Queen of Pepper Road High</p> <p>To use spelling rules to add -s or -es to words to make them plural.</p>	<p>Warm up: Play with online dice https://www.online-stopwatch.com/chance-games/roll-a-dice/ and the picture of nouns' dice. Students will say nouns and teacher will ask to the others how to name them in English.</p> <p>Activities: Check spelling list presentation about nouns, while explaining tell students to write the nouns in singular, what changes in the plural form?</p> <p>Assessment: work on pages 35, 40 and 196.</p>



Weekly Guide

Teacher: Shirley Chinchilla / Arlette Lescouflair

Level: 4th

ENGLISH Expected Learning	ASSIGNMENTS
<p>Reading</p> <p>The Queen of Pepper Road High</p> <p>Causes and Effects</p> <p>To understand the connection between cause and effect.</p> <p>To identify cause and effect in a text.</p>	<p>Warm up: Students play with the teacher an online game https://www.roomrecess.com/mobile/CauseEffect/play.html</p> <p>Activities: Read story from pages 15 to 23. Recall to students what “causes and effects” are, use examples from the reading, then answer question 3 on page 24.</p> <p>Assessment: Teacher will explain to students how to use FORMS.</p> <p>https://forms.office.com/Pages/ShareFormPage.aspx?id=CTxQXtrEpkij1o55IvHScAWYFpSVs9Io9_rN1O3N6RUOThOUEJET09XSjY3WVhSMTlaUDJES1dJWiQIQCN0PWcu&sharetoken=l55wE1841UnGIUWY57bO</p>
<p>Grammar</p> <p>Present Progressive Tense</p>	<p>Warm up: Play charades with students: send the following messages to 4 different students, privately: a. pretend to read a book b. pretend to be drinking water c. spin / move in your chair d.</p>

<p><u>Affirmative and Negative sentences</u></p> <p>To apply present progressive in affirmative and negative statements.</p>	<p>walking around. Ask students who is doing what, use present progressive to make the questions. Write the answers, then ask them to notice the “ing” pattern in the verbs.</p> <p>Activities: have students playing the following game https://www.eslgamesplus.com/present-progressive-continuous-esl-grammar-fun-game-online/ . Students will work on handout flapbook, how to add ing. Complete the flapbook with the example verbs in the presentation, they must be written inside each corresponding flap.</p> <p>Assessment: With a color paper, students will create sentences in present progressive using the pictures that were previously ask for the teacher, if they come out with sentences in negative, let them. (home study: 4 small pictures of people or animals doing 4 different activities).</p>
<p>Spelling</p> <p>The Queen of Pepper Road High</p> <p>To use spelling rules to add –s or –es to words to make them plural.</p>	<p>Warm up: Play with matching game at PowerPoint presentation.</p> <p>Activities: Review words for the quiz, check spelling and ask for examples of sentences.</p> <p>Assessment: Teacher dictates words: Teammates, Companies, Taxes, Scratches, Hobbies, Donkeys, Daisies. Students make sentences with memories, holidays, costumes.</p> <p>Have students practicing with https://wordart.com/ since next week we will evaluate spelling with this app.</p>
<p>Conversation</p> <p>1 Lesson</p>	<p>We continue listening to students records of “If I had superpowers”</p>
<p>Writing a Postcard</p> <p>1 Lesson</p>	<p>Warm up: students interact with this “quiz – video” about landmarks around the world: https://youtu.be/QMma85eDBus</p>

Postcard

To write about past and future events by writing a postcard.

Activities: Teacher will explain the writing of the postcard. Requirements: 1. Place from where they write. 2. two sentences saying what they are doing in the holiday. 3. One sentence explaining what they will do next. 4. Greetings 5. Name and address where the postcard will be sent.

Assessment: Students will finish this topic by doing the postcard that is printed in the materials, they should also, do the drawing of the city they “are” visiting.



Saint Michael School
Fourth Graders



Monarch Butterfly

The monarch is an incredible butterfly. Each year, this brightly-coloured insect spends the spring and summer months munching on milkweed leaves and drinking nectar from flowers in North America. When autumn comes and the weather turns cold, it travels thousands of miles south to Mexico. It then spends the entire winter hibernating, only to wake up in the spring to travel all the way back again!

Migration

The monarch migrates further than any other butterfly. What's even more amazing is that it takes four generations of monarchs for this to happen - the creatures only live for a few months. That means it will take a monarch butterfly's great grandchild to complete the entire journey over the year! How they know how to do this has baffled scientists for years!



Milkweed

Milkweed is the only plant monarchs eat when they are caterpillars and they don't grow in the forests of Mexico. That's why it's important for the butterfly to fly back north to USA and Canada where there's lots of it. The monarch will then lay its eggs on the underside of milkweed leaves. Once the caterpillar hatches, it gorges on the tasty green leaves for about two weeks. It then connects itself to a twig or a leaf and forms a chrysalis. That's when its amazing transformation into a butterfly begins.

Did you know....

Chrysalis from monarch butterflies last between 9 to 14 days?



Ilustración 2 Monarch Butterfly Handout

There is - There are



1. Complete with there is / there are

- a t-shirt on the bed.
- two books on the floor.
- a scarf on the floor.
- four pictures on the wall.
- many books on the shelves.
- a book on the bed.
- a laptop on the floor.
- some papers on the floor.

2. Answer the questions using

Yes, there is / Yes, there are / No, there isn't / No, there aren't

- Are there any eggs in the fridge?
- Are there any onions in the fridge?
- Is there any lettuce in the fridge?
- Is there any milk in the fridge?
- Are there bananas in the fridge?
- Is there a cake in the fridge?
- Are there any lemons in the fridge?
- Is there any pizza in the fridge?



3. True or false?

- TRUE / FALSE
- TRUE / FALSE
- TRUE / FALSE
- TRUE / FALSE
- TRUE / FALSE
- TRUE / FALSE
- TRUE / FALSE
- TRUE / FALSE

Ilustración 1 There is- There are practice



Ilustración 4 Vocabulary WordArt Activity

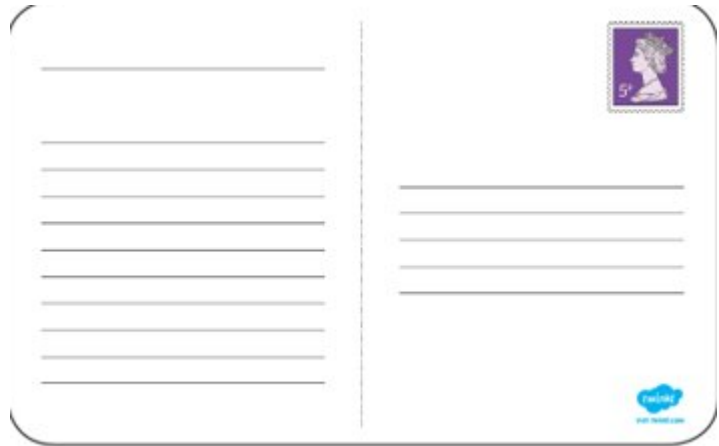


Ilustración 3 Writing a Postcard Handout

Bibliographical References

Backward Design. (2017, June 3). University of Central Florida.

<https://fctl.ucf.edu/teaching-resources/course-design/backward-design/>

Berman, S., & Tinker, R. (1997). The world's the limit in the virtual high school.

Educational Leadership, 55(3), 52-54.

Blascovich, J., & Bailenson, J. (2011). *Infinite reality: The hidden blueprint of our virtual lives*. New York: William Morrow.

Bradson, G. (2020). *Online Course Guide for Instructors: Comprehensive Guide for Preparing Online Courses, Understanding Students, Managing Course Subscribers and Online Teaching ... Strategy for Instructors (English Edition) (2nd ed.)*.

<https://www.amazon.com/-/es/Rena-M-Paloff-ebook/dp/B00D0IJMQM>

Brown, A. & Green, T. (2016). (Producers). Trends and issues in instructional design, educational technology, and learning sciences, episode 54 [Audio Podcast].

Retrieved from <http://trendsandissues.com/>.

Buchner, J. (2018, September 3). How to create Educational Videos: From watching passively to learning actively. ResearchGate.

https://www.researchgate.net/publication/327423659_How_to_create_Educational_Videos_From_watching_passively_to_learning_actively

Buehl, D. (2000, October). Backward design; Forward thinking. *Education*

News. Retrieved 10 June 2012

from https://web.archive.org/web/20130327141424/http://www.weac.org/news_and_publications/education_news/2000-2001/read_backwards.aspx

Cabrera, L. (1996). La enseñanza de la lengua inglesa en Costa Rica desde el inicio de la vida republicana hasta nuestros días. San José, Costa Rica. Inédito.

Characteristics of Qualitative Observational Research (2020).

Colostate.Edu.

<https://writing.colostate.edu/guides/page.cfm?pageid=1352&guideid=63>

Childre, A., Sands, J.R., Pope, S.T. (2009). Backward design. Teaching Exceptional Children, 41(5), 6-14.

Cho, J., & Trent, A. (2005). "Backward" Curriculum Design and Assessment: What Goes Around Comes Around, or Haven't We Seen This Before?. Taboo: The Journal of Culture and Education, 9(2), 105–122.

Connors, M. (2020). Getting Started with Google Classroom: A Simple Guide to Creating your First Digital Classroom. Independently published.

Delgado, J. (1993). Costa Rica: régimen político (1950-1980). San José, Costa Rica: Editorial Universidad Estatal a Distancia.

Dengo, M. (1995). Educación Costarricense. San José, Costa Rica: Editorial Universidad Estatal a Distancia.

Elbaum, B. (1998, Winter). Is the virtual high school "educational reform?"

@Concord.org, Newsletter of the Concord Consortium [Online serial], 10.

Available: <http://www.concord.org/library/newsletter.html>.

Fink, L. D. (2013). *Creating Significant Learning Experiences: An Integrated Approach to designing College Courses*, 2nd ed. San Francisco: Jossey-Bass.

Jones, K.A., Vermette, P.J., Jones, J.L. (2009). An integration of "backwards planning" unit design with the "two step" lesson planning framework. *Education*, 130(2), 357–360.

Jorgensen, C.M. (1995). Essential questions - Inclusive answers. *Educational Leadership*, 52(4), 52–55.

Kemp design model. (2007, June 4). In Edutech Wiki. Retrieved 10 June 2012 from http://edutechwiki.unige.ch/en/Kemp_design_model.

Marín, E. (2003). Tesis doctoral: Historia de la enseñanza del inglés en Costa Rica y su paralelismo con el desarrollo económico de Costa Rica.

McTighe, J., & Thomas, R.S. (2003). Backward design for forward action. *Educational Leadership*, 60(5), 52–55.

McTighe, J., & Wiggins, G. (2004). *Understanding by design: Professional development workbook*. Alexandria, VA: Association for Supervision & Curriculum Development.

Merrill, M.D., Drake, L., Lacy, M.J., Pratt, J. (1996). Reclaiming instructional design. *Educational Technology*, 36(5), 5–7.

Ministerio de Educación Pública. (1991). *Programas de Estudios de Inglés*. San José: Departamento de Publicaciones.

National Research Council (2012). *A framework for K-12 science education: Practices, crosscutting concepts, and core ideas*. The National Academies Press. <https://doi.org/10.17226/13165>.

Nicholson, P. (2008). *Computers and Education* (Reviewed ed.).

https://books.google.co.cr/books?hl=es&lr=&id=vPj_VH7sLvAC&oi=fnd&pg=PP8&dq=computers+and+education+nicholson&ots=XlqaVjqXO7&sig=SyRwtbO8exFdEeY1PJSqoFenHqw#v=onepage&q=computers%20and%20education%20nicholson&f=false

Palloff, R. M., & Pratt, K. (2013). *Lessons from the Virtual Classroom: The Realities of Online Teaching*, 2nd Edition (2nd ed.). Jossey-Bass.

Shane, S. (2020, April 9). *Keeping Students Engaged in Digital Learning*. Edutopia. <https://www.edutopia.org/video/keeping-students-engaged-digital-learning>

Shumway, S. & Berrett, J. (2004). *Standards-based curriculum for pre-service and in-service: A partnering approach using modified backward design*. *Technology Teacher*. 26–29.

Stiles, M. J. (2007). *Learning and the Virtual Learning Environment* (2nd ed.).

<http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.616.2633>

Tyler, R.W. (1949). *Basic principles of curriculum and instruction*. Chicago: The University of Chicago Press.

Velarde, O. (2020, August 26). 14 Online Teaching Tools to Enrich Your Virtual Classroom. Visme Blog. <https://visme.co/blog/online-teaching-tools/>

What is Backward Design? (n.d.) Retrieved 13 June 2012 from

<http://www.wisegEEK.com/what-is-curriculum-design.htm>

Wiggins, G. & McTighe, J. (1998). "What is backward design?" In *Understanding by Design*. (1 ed., pp. 7–19). Upper Saddle River, NJ: Merrill Prentice Hall. Retrieved from https://web.archive.org/web/20160721163755/http://www.fitnyc.edu/files/pdfs/Backward_design.pdf.

Wiggins, G. & McTighe, J. (2008). Put understanding first. *Educational Leadership*, 65(8), 36–41.

Wiggins, G., & McTighe, J. (2005). *Understanding by Design, Expanded 2nd Edition*(Package May Vary) 2nd Edition (2nd ed.). https://www.amazon.com/Understanding-Design-Expanded-Package-Vary-dp-0131950843/dp/0131950843/ref=as_li_ss_tl?ie=UTF8&linkCode=s11&tag=cultofpeda-20&linkId=6226f88b331b8c04cd6e6b6acf796a1b&language=en_US

Wiggins, G., & McTighe, J. (2011). What is backward design?. Understanding by design, 7-19.

Wiggins, G.J. & McTighe, J. (2005). Understanding By Design, 2nd ed. Pearson Higher Education

Writers, S. (2021, February 17). The History of Online Schooling. OnlineSchools.Org.
<https://www.onlineschools.org/visual-academy/the-history-of-online-schooling/>