ENHANCING INTERACTION THROUGH REAL-WORLD TASKS SETTLED AT THE EDUCATIONAL NETWORK EDMODO IN A GROUP OF SECONDARY NINTH GRADERS IN A PUBLIC SCHOOL.

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Abstract

This study was carried out for a group of four teachers – researchers during this year. This was focused on the way in which an educational network can help teachers to enhance student interaction through Real–World Tasks. The implementation of the project was developed virtually with students from ninth grade at a public school in Monteria, Córdoba. Data collection was analyzed based on the content uploaded to the educational network called Edmodo, a logbook written by the researchers, and the artifacts created by the students. Three categories emerged from the data analysis which supported the finding that Real–World Tasks posted in an educational network can foster students to participate and share more ideas that help in the performance of a language learning process.

Keywords: Interaction, real-world tasks, educational network, Edmodo.

Resumen

Este estudio de caso fue llevado a cabo por cuatro investigadores durante el año 2022. El objeto de la investigación se centró en la forma en la que una red educativa puede mejorar la interacción de los estudiantes haciendo uso del inglés como lengua extranjera a través de las tareas del mundo real. El proyecto se implementó y desarrolló virtualmente con estudiantes de noveno grado de una institución educativa pública de Montería, Córdoba. Los datos recolectados fueron analizados en base al contenido encontrado en la red educativa Edmodo, así mismo los investigadores hicieron anotaciones del proceso de implementación en una bitácora y se tomó evidencia de los artefactos como producción de la interacción estudiante - estudiante, profesor y contenido. Como resultado, del análisis de la información, emergieron

tres categorías, las cuales respaldan la teoría de que las tareas del mundo real posteadas en la red educativa, pueden favorecer en los estudiantes la participación e interacción, y del mismo modo compartir ideas que ayuden en el desempeño del proceso de aprendizaje de una segunda lengua.

Palabras clave: interacción, tareas del mundo real, red educativa, Edmodo.

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1. Introduction

Since 2020, the world has suffered one of the most challenging situations with the declaration of Covid-19 pandemic. This reality has brought great transformations in different areas of people's lives. For example, in economy, business closures disrupted the supply of goods and services resulting in unemployment and poverty according to Vitenu-Sackey and Barfi (2021); in terms of mental health, Covid-19 affected the daily life producing negative feelings such as anger and nervousness among people (Ferrante et al., 2022); and finally, referring to education, social distancing and restrictive movement policies disturbed traditional educational practices (Pokhrel & Chhetri, 2021) which required thinking of different learning environments that had not been explored in many contexts as it was remote education. This was a new pedagogical model that educational participants had to get familiar with, resulting in the implementation of different digital resources including the use of e-mails, educational networks and social networks to communicate (Pastran et al., 2020).

Based on what has been previously mentioned, it is relevant to consider the concept of digital literacy due to the fact that its purpose is to provide learners with a set of skills they need in the 21st century to use digital tools to support the achievement of goals (Fu, 2013 cited in Reddy et al., 2020); in other words, it goes beyond learning how to use digital devices or how to search online (Buckingham, 2015). In this line, this project intends to foster foreign language interaction through the use of an educational network called *Edmodo* which is a free virtual social network for educational use that allows teachers and students to communicate and interact in a private virtual environment. According to Ahumada, Fandiño and Torres (2018, p. 21) "this service provides the teacher with a virtual space in which messages, files, and links

can be shared, a classroom calendar, as well as proposing tasks and activities and managing them". Among its main functions (Ahumada, Fandiño and Torres, 2018, p. 21) we have:

- Create private groups with limited access to teachers, students and parents.
- Have a space for communication between the different roles (teacher, parents and students) through messages and alerts.
- Share multimedia resources such as files, links, videos, etc.
- Incorporate blog content.
- Survey students.
- Assign homework to students
- Manage test grades
- Manage a calendar in class.

Another special feature of Edmodo according to (Kruawan, Sukanya and Paster, 2019) is that it has appropriate and safe characteristics for use by minors, is easily accessible, attractive to students because its design is similar to Facebook and allows educators to monitor the educational process.

This project will be carried out in a public school in Monteria, Córdoba, that holds a constructivist pedagogical model and a social cognitive approach, and where there are groups from preschool to eleventh grade. In addition, the school emphasizes English as a foreign language according to the standards established by the Bilingualism National Programme, and an adaptation of the suggested curriculum proposed by the Ministry of Education where secondary school learners are required to achieve the B1 level.

The participants will be a group of thirty-seven 9th graders (54% boys and 46% girls) whose ages range between 13 (17%), 14 (27%), 15 (50%), 16 (3%), and 17 (3%) years old. Besides, they belong to the 0, 1, 2, and 3 socioeconomic statuses. To select the group of participants in this study, one of the researchers, who is the head of the group and its English language teacher, observed that most students have electronic devices, especially smartphones, which allow them to be enrolled in social networks. For that reason, an online questionnaire was applied to the sample group at the beginning of the study to gather information about their internet access, their preferences in terms of social networks, what they use them for, and the topics they would like studying to learn English.

After analyzing the student's responses, it was found that all of them have regular internet access at home facilitating the development of real-world tasks integrating technology into the process. Besides, they expressed that the social networks they use the most are Facebook, Instagram, Youtube, and TikTok, mainly for entertainment, education, and any kind of research. Also, it was found that there are different topics the participants are interested in when learning English. They mention they would like to learn vocabulary from videos, be involved in games to learn English, read movie subtitles, and a minority of them participate in forums about interesting topics in the foreign language.

Another pertinent aspect to mention is the fact that the observer could identify that most of the participants do not have the expected results when learning English and that most of them do not interact as much as they used to do in online sessions during the covid-19 pandemic. For that reason, the research group will propose a strategy based on digital literacy for the foreign language to promote interaction using the educational network “Edmodo”. To achieve interaction, the group has designed a series of Real-World Tasks taking into account the information obtained in the characterization questionnaire, which will be applied on the Edmodo.

2. Objectives

2.1 General Objective

Enhance interaction through real-world tasks settled at the educational network Edmodo in a group of secondary ninth graders in a public school.

2.2 Specific Objectives

- Implement real-world tasks through the educational network Edmodo to foster interaction between ninth graders in a public school.
- Establish emerging patterns of interaction among ninth graders through real-world tasks at the educational network Edmodo.
- Analyze the emerging patterns of interaction in a group of ninth graders mirrored in real-world tasks at the educational network Edmodo.

3. Question Research

How real-world tasks settled in the educational network Edmodo enhance interaction in a group of secondary students?

4. Literature Review

This chapter will provide background information on the concepts and constructs that have been involved in this study. The first one refers to digital literacy which is relevant to the study since a digital resource will be used. The second includes the definition of interaction; types of interaction; and interaction patterns as a relevant process between people to improve

language skills. The third one will deal with the educational network Edmodo, because it is the learning environment where this study will be carried out. Finally, the Real-World Tasks construct will encourage interaction based on the students' interests, hobbies, needs and the school curriculum considering that the real-world is connected through these types of tasks.

4.1 Digital literacy

Considering the digital age, it is important to mention the concept of digital literacy (D.L.) as one of the basic theoretical constructs that support this study, that aims for the improvement of the communicative skills and its impact as an interaction strategy in social networks. In this sense, Hague and Payton (2010), and Heitin (2016) mentioned that, digital literacy is defined as a set of skills such as creativity, critical thinking, evaluation, cultural and social understanding, collaboration, effective communication, E-safety, functional skills and, the ability to find and select information through the use of digital technologies in all areas of life.

For that reason, the research group will implement a strategy based on digital literacy principles, its seven capabilities elements and Real-World Tasks activities to generate interaction through an educational network called "Edmodo". In this sense, Hague and Payton (2010, p. 3) about DL expressed "It means being able to communicate and represent knowledge in different contexts and to different audiences (for example, in visual, audio or textual modes). This involves finding and selecting relevant information, critically evaluating and re-contextualizing knowledge and is underpinned by an understanding of the cultural and social contexts in which this takes place."

Furthermore, Lopez (2020, p. 1), defines digital literacy "as the use of technology, understood as the set of skills necessary for the correct development of the individual in the interaction dynamics of Information and Communication Technologies (ICTs)", and the article

"Digital Media Literacy Core Competencies" published by Canada's Centre for Digital and Media Literacy, Media Smarts (n. d.), mentions and describes four main principles to keep in mind:

- Access: can be considered a precondition of digital media literacy, as it is impossible to be media literate without affordable and reliable internet access.
- Engage: is the ability to make and use media tools to express yourself and participate in online and offline communities. Create and communicate using rich media such as images, video and sound; reflect on the social and political implications of media and use media tools for community engagement and social activism.
- Understanding: is the critical piece – it's the set of skills that help us comprehend, contextualize and critically evaluate digital media so that we can make informed decisions about what we do and encounter online.
- Use: include using tools and networks such as cameras, word processors, web browsers, social networks and media-making apps; using media tools in ways that promote positive physical and mental health and mitigate risks to health and safety.

I agreement, digital Literacy as a theoretical construct is necessary and applicable to the development of the research project due to its direct relationship with technologies and its implementation through its principles, ideas, and concept as an innovative strategy that allows learners to become an active meaning-makers, this idea is supported by Hague and Payton (2010, p. 12) when they affirmed that, "D.L. has therefore become an important resource which supports learning by, for example, allowing students to successfully find and select relevant information and access subject knowledge in different formats" .

In the same line, technological development allows students to seek, exchange and acquire information by integrating IT components in learning environments to promote linguistic and social interaction such as digital literacy, in that sense, Sanchez, (2022, p. 17) states that "At the end of the 20th century and the beginning of the 21st century, there is evidence of a

change in the way people read and exchange information. This has increased the demand for a vertiginous adaptation due to the growing diversity of resources and ways of learning both in educational and work contexts from which social and cultural transformations emerge”.

The Ph.D. Álvaro Ernesto Sánchez (2021) in his doctoral thesis "Digital literacy focused on reading skills of digital hypertexts in secondary school students", and the researcher group develop the investigation work taking into account particular characteristics of its participants and educators, within which we can mention, the context and needs of the sample, the high number of students per classroom belonging to social status 1, 2 and 3, the assumption of the students as digital natives, both projects recognize the importance of using the skills and principles of digital literacy as a construct to encourage training, academic and personal development of learners. Furthermore, Sanchez (2021), author of the doctoral thesis previously mentioned, establishes a general idea about the importance of boosting digital literacy to promote interaction and learning in participants who mostly belong to vulnerable sectors, at the same time, it invites to reflect on the possible contributions that the research project "Enhancing interaction through real-world tasks settled at the educational network Edmodo is a group of secondary ninth graders” will have in not only academic development and enhancing interaction, but also the impacts that this type of strategy can generate in the students’ performance such as critical thinking, effective communication, develop collaborative work, active participation in digital networks, creatively produce significant content, find- interpret - evaluate and share information.

4.2 Interaction

The interaction according to the Real Academia Española (2022) is the action that is exercised reciprocally between two or more objects, people, energies, and agents. In the same sense:

"…interactions, from a general perspective, are understood as the processes of association of some conscious actors with others, between which there is an exchange, an orientation, and an affectation of the behavior of some people with respect to others, and with which a certain relationship is established. These processes of interaction between members of a specific group generate a network of edifying relationships in the social and cultural organization". (Blandón, Molina and Vergara 2005, p. 14). In consequence, interaction is very important and fundamental for the personal, communicative, and socio-affective development of the participants in this project, since such interaction will allow the creation of environments of communication and effective participation by creating personal and educational links.

4.2.1 ***Types of interaction*** Next, linguistic and social interactions are presented as reference bases for this project.

4.2.1.1 Linguistic Interaction. Throughout mankind's history language has been the medium that has allowed him communication with other human beings and transmission of culture from generation to generation. Therefore, linguistic interaction is conceived as a tool that allows people to elaborate and control their thoughts, appropriate knowledge, synthesize it and represent it through symbols (Vigotsky, 2010) which is complemented by Cervantes, Jiménez, and Martinez (2022) when they affirm that linguistic interaction allows sharing, systematizing and universalizing knowledge through a system of symbols defined by language. Linguistic interaction should be based on an exchange of verbal and non-verbal actions between persons wishing to exchange ideas, knowledge, and conceptions since "the linguistic structures possessed by a speaker are not innate, but the results are from the interaction between a certain level of cognitive development and a certain linguistic and social environment" (Centro virtual Cervantes, 2022, p. 82). In view of the above, it is important to highlight that the linguistics interaction provides quite many benefits to this project since it allows researchers and students to use language as a means to interact with each other orally or in writing sharing experiences, preferences, successes, misunderstandings, and knowledge collaboratively building a participatory discourse.

4.2.1.2 Social Interaction. Man as a social being by nature uses action and communication to interact socially in different areas: work, family, personal, professional, recreational and educational which triggers in tissues and social networks of interpersonal participation, intrapersonal and group creating social interactions seen as "the dynamic social relationship (that is, constantly evolving) that exists between the various people involved in the action" (Ollivier 2018, p.23). Taking into account the author's idea, it is possible to infer that people have the ability to relate to others and their environment through action and communication which generates a great impact and universal interaction.

Looking at the educational field, Arias (2009, p.10) mentions that "...the classroom is one of the most appropriate places to recognize social interaction through daily existence because, in it, both students and educators share not only knowledge, but all kinds of interactions" as well as communicative activities, actions, reactions, attitudes, situations, and all kinds of behaviors.

For this reason this project believe that students in their daily school interaction "need to perform tasks in which they are exposed to a variety of social interactions to develop a real communication capacity" (Ollivier 2018, p. 34) which leads to high levels of motivation in students towards interaction and also towards the entire educational process that along with the integration of technology makes students feel part of social groups in which they can interact to express their interest (Aesthesis, 2020). There are also other types of interaction that go beyond the traditional ones, they are related to verbal interaction, non-verbal interaction, and digital interaction.

4.2.1.3 Verbal Interaction. Verbal interaction is an activity that connects one person to another through the use of language. Verbal interaction activities direct students to understand the results of their thoughts, provoke greater understanding among students, and lead to a more complex conversation (Syarifudin et al 2019).

4.2.1.4 Non-verbal Interaction. This type of interaction is a form of communication that encompasses a large number of elements DeFleur et al. (2005, as cited by Juárez, 2019) state that non-verbal interaction can be defined as the deliberate or unintentional use of objects, actions, sounds, time, and space that generates meanings in others. Some examples of non-verbal communication are body movements, postures, facial gestures, interpersonal distance, spatial location, physical appearance, intensity and volume of the voice, throat sounds and even silence communicate non-verbally.

4.2.1.5 Digital interaction. Digital technology has brought an expansion of spaces for the development of human sociability through new ways of communication and social interaction both offline and online (Serrano, 2013). In this way, digital technologies in different situations and daily activities have led to no longer live "with" the media, but rather "in" the media (Deuze, 2012) which favors the maintenance and consolidation of social links.

In the research study developed by Alhih et al. (2017) called "Levels of Interaction provided by online distance education models" aimed to evaluate the levels of interaction in the practices of distance education centers. In this way, they made their reflections and analysis on synchronous education and distance education, this being the education in which teachers and students exchange correspondence (smart classrooms, audio, video, images, conferences, telephone connection via Internet and satellite transmissions). According to Simonson & Schlosser 2009 as cited by Alhih et al. 2017 there are two processes for correspondence: creation and publication. The first one allows the creation of all kinds of content using technological tools, thus promoting student-content interaction and the student-interface interaction, and later the publication of the information built promoting the student-student interaction, the student-teacher interaction.

4.2.2 Patterns of Interaction

A pattern of interaction allows us to define the way in which the student learns and makes use of that learning in his educational process either with the teacher, his classmates, subject or content (Guevara, 2011), in this sense "patterns of interaction are considered as regularities that are interactively constituted by the teacher and students" (Voigt, 1995, p. 178 cited in Nolasco and Sigarreta, 2015, p.2).

Given the above, Pérez (2009) from the work of Anderson (2003) proposes a synthesis of each type of interaction present in the virtual educational process:

4.2.2.1 Teacher-Students (T-Ss) Interaction. According to Pérez (2009), this type of interaction encourages the continuous dialogue between teacher and student and contributes to the motivation for learning. In this interaction, the teacher's central role is to act as a mediator or intermediary between the contents and the constructivist activity that students deploy to assimilate them (Martínez and Ávila, 2014). Thus, “teachers must learn to plan activities that maximize the impact of interactions with students and provide alternative forms of interaction” (Anderson 2003, p. 134).

4.2.2.2 Student-Student (Ss-Ss) Interaction. This type of interaction fosters collaborative work among peers. For Rizo (2020) this is a factor that enhances the true exchange of knowledge because it is enriched with the experiences of others and develops communicative skills, as well as to be more recursive, autonomous, and proactive in decision-making. Therefore, for Anderson (2003) teachers need to have access to different tools and practical theories that promote the development of independent and collaborative learning activities.

4.2.2.3 Student-Content (Ss-C) Interaction. Pérez (2009) mentions that this type of interaction refers to the way the student interacts with learning content in order to process and apply it according to their own experience and contexts. This might be quite useful to establish a cognitive dialogue between their experiences and new learning. According to Rizo (2020), student-content interaction can include direct communications with teachers, discussions with classmates, or self-study of content mediated by ICT tools. In this type of interaction, it is common to use texts, hypertexts, study materials, and a variety of educational content such as different sounds, all types of texts, a variety of graphics, animated, explanatory, recreational videos, and virtual reality (Tuovinen 2000).

One of the contribution that this research study provides to the project "Enhancing interaction through real-world tasks settled at the educational network Edmodo in a group of secondary ninth graders in a public school" is that it focuses on distance education and the use of educational networks as a means to enhance learning through different patterns of interaction such as: student-student, student-teacher, student-content and student-interface since Ossiannilsson (2012) considers they are crucial for succeeding in e-learning courses and to motivate students in their own learning process.

4.3 Learning a language through an educational network

This construct is relevant for the research project because as Chávez, J. (2015) states, an educational network emerges as a possibility to have an advance in collaborative learning thanks to their features that promote a positive environment among teachers and students. Therefore, an educational network could be useful, according to what Martin-Moreno (2004 as cited in Espuny et al. 2011) says since it promotes collaborative work which increases motivation, there is feedback for all the students individually and in groups, Also, it encourages students to think critically while sharing more knowledge and experiences. In the same line,

Rodriguez and Araque (2019) converge on the fact that virtual educational networks guarantee "the participation and interaction between students and teachers, connectivity and access to digital resources" (p. 28); they also mention as educational advantages such as the academic accompaniment, flexible time management, autonomous and co-working work and regional openness essential in the teaching and learning process.

In consequence, the activities that are going to be carried out for the project during the third term in the school are learning strategies and techniques that will encourage students to work in groups or pairs in order to enhance an interactive environment where learners could feel that this space let them understand all the topics and speak using the accurate vocabulary according to their English curricula. The educational network that the research group selected is Edmodo because it has become a useful network for teachers since 2008, and its motto is a global education network that helps connect all learners with the people and resources needed to reach their full potential (Edmodo, 2021)

Some researches such as the one made by Hernandez, E. and Navarro, M. (2018) where they studied local education networks for school improvement in two samples: elementary and secondary school in Spain where they concluded that the educational networks are dynamic and are more efficient to carried out the tasks online in a better way than during the classroom; teachers become innovative and students are aware to participate more.

4.4 Real-world tasks (R-WTs)

According to Ollivier (2018) a task is a set of activities that aim to come up with a final product that may, or may not require language use (Long, 1985). However, since this study will be carried out in an educational context where the main purpose is that students learn a foreign language, tasks should involve using that language in a real-world context (Ellis, 2003) focusing on meaning instead of linguistic aspects (Candlin, 1987; Ellis, 2003; Guichon, 2006; Skehan, 1998; Willis, 1996) in order to solve a problem (Council of Europe, 2001). Besides, tasks require

that students already possess some internal resources (knowledge) that, combined with external ones such as digital resources, have to produce an outcome or output that may be concrete or abstract (Ollivier, 2018).

Based on what has been previously discussed, it is possible to conclude that tasks are directly related to social interaction since they are developed with others (Ollivier, 2018) which implies language use among the participants in order for them to achieve a goal.

Nunan (2004) mentions that real-life tasks are carried out distant from the school context, otherwise they become pedagogical tasks since they relate to a communicative act we achieve through language in the world outside the classroom" Nunan (2001). At this point, it is relevant to integrate the concept of "Real-world-tasks" which is described by Ollivier (2018) as tasks developed through social interaction that occurs outside the educational context resulting in social interaction between learners and people who are not involved in the educational context. From this perspective, it is possible to mention that the educational network Edmodo will play a relevant role in this project since it will be a technological instrument that might facilitate collaboration and interaction among users Khalid and Bingimlas (2017) resulting also in learners' digital literacy development. Finally, Ollivier also mentions that the main purpose of real-world tasks is to use language as it would be used in real contexts instead of language learning; and that they should not be imposed but suggested to the learners.

4.4.1 Benefits of Real-World Tasks

Integrating real-world tasks to the educational field positively impacts the teaching-learning process in different ways according to Ollivier (2018).

- Authenticity is fostered since there is a close similarity in terms of: 1) the tasks themselves and real-world activities. 2) the interaction to solve the tasks and the interaction that happens in real life (Ellis, 2003).

- Learners acquire a wider view of the world due to the fact that real-world tasks may allow interaction among people without considering geographical limitations due to the web 2.0 technologies integration such as using Edmodo.
- Language limitations of the classroom in terms of language use are reduced and interaction among learners is promoted giving them more control and shortening the communication asymmetry evident when teachers use the language most of the time (Bump, 1990; Kelm, 1992; Kern, 1995; and Warschauer, 1996).
- Real-world tasks foster learners' motivation.
- Learners are aware and encourage themselves to have high-quality performance in the tasks.
- Due to the socio-interactional nature, learners move from being language learners to language users in real contexts.
- Web technologies included in real-world tasks enhance the learners' affective dimension and feeling of empowerment because free speech (Foucault, 1969 and 1971; Bourdieu, 1992 and 1999), autonomy, and the self-confidence to participate are promoted (Weissberg, 1999).
- Ollivier (2018) mentions that different studies about online language and social interactions contribute to the development of the learners' identity, metacognitive strategies and language skills to guarantee an effective socialization process. Besides, the studies also highlight the importance of exposure to the target language, the possible incorporation of native speakers which may expose learners to different cultures, and the development of ICT tools.

A project titled "Language interaction through the implementation of content-based instruction developed in a blended learning environment in an EFL group of 6th graders at José Manuel Marroquín School" was carried out by Benavides (2014) in Bogotá. Her project is

closely related to this one since she also aimed to promote language interaction through tasks based on content-based approach in the classroom as well as beyond it through a virtual learning environment on Edmodo. She also had to design the tasks as the research team did in order for them to really meet the curriculum items, the students' interests, and real-world activities. In her project, she cited Pica, Kanagy & Falodun (1993), and Yufrizal (2009) who propose a categorization of the tasks which promote learner's interaction.

Similarly, a project named "Spoken interaction in a virtual Task-based language learning environment" was addressed in Bucaramanga by Lizarazo (2021). He used a mixed research method to identify how spoken interaction occurs in a virtual Task-based language learning environment in a group of fifth graders as this project proposes to do with Edmodo. He explored three constructs as the fundaments of his project: tasks-based learning, learners' interaction, and oral production. From those, the first one is related to the real-world tasks and the second one to the construct of interaction proposed in this project. He concluded that students really engage in meaningful tasks using digital resources and the teacher's support to improve spoken interaction and that digital resources have an important role in pedagogical implementation. Moreover, he states that students are able to find new opportunities to learn and use English as the learning process includes technology and digital resources. (Lizarazo, 2021).

5. Research Design

To describe the student's interaction level and address the design of real-world tasks through Edmodo, a qualitative perspective was considered to understand people's beliefs, experiences, attitudes, behavior, and interactions (Pathak, Jena and Kalra, 2013). In addition, Dörnyei (2007) mentioned that qualitative research involves data collection procedures that are analyzed primarily by non - statistical methods like observations and interviews which allow evidencing the students' experiences, perspectives, and attitudes that will occur during the implementation of the project.

It is essential to mention that one of the research teachers who had direct contact with the participants, after having made a detailed class observation, evidenced that, for many students, it was difficult to participate and interact using English as a second language, for that reason, it was stated that participants lack interaction, evident from the physical classroom and the online setting implemented during the pandemic. Because of the teacher's observation, it was possible to state that the phenomenon of showing reluctance towards interaction even increased during the pandemic. But also, it was feasible to mention that in this particular situation, students showed interest and interacted in other settings and contexts like social networking.

In this order of ideas, the group of researchers decided to address this project as a case study which is a type of qualitative research where a great amount of information might be gathered from different sources (Smith, 2018). In 2021, Canta and Quesada mentioned that the criteria for selecting and carrying out case studies is associated with the personal knowledge or experience of the researcher, which is evident in this study because one of the researchers works as the English teacher of the group of students that will participate in the project. In the same line, Creswell and Poth (2018) stated that a case study is a method in which researchers do an analysis of a specific case as it is the main purpose of this project: to enhance those students' interaction through real-world tasks settled at the educational network Edmodo in a group of secondary ninth graders in a public school. Finally, (Avolio 2015) argues that for data analysis and interpretation, it is crucial to organize, systematize and describe the information collected; For that reason, it is necessary first to apply different data collection methods and techniques to compile the information; then, that information will be organized and systematized in some categories that will allow a better analysis; after that, data triangulation will emerge as a relevant aspect to avoid biases that may result from analyzing information from a single source

achieving a balanced description to readers (Noble and Heale, 2019); to finally come up with some conclusions about the project.

The participants of this study were selected because of the population where the problem statement was identified, one of the researchers is currently working there. The participants are thirty-seven ninth-grade students at a public school. The students' English level is A1 according to the observations of one of the researchers, who is the head of the group and the English teacher. He also noticed that the students come from low and middle-income families. Despite that, most students have electronic devices, especially smartphones, which allow them to be enrolled in social networks.

5.1 Instruments of data Collection

The researcher team considered using a qualitative investigation project to allow the interaction between the participants and the improvement of their communicative skills through the educational network Edmodo which is an internet-based learning management system (LMS) that offers a secure virtual classroom where teachers and students might interact to collaboratively succeed in the development of tasks. Charoenwet and Christensen (2016). For that reason, to develop the investigation proposed by the researcher team "Enhancing interaction through real-world tasks settled at the educational network Edmodo in a group of secondary ninth graders in a public school", It is necessary to apply a serie of qualitative instruments and methods that allows the collection of the information, among them it is important to mention:

5.1.1 Real-World Tasks R-WTs (evidence)

As has been mentioned before a task is a set of activities that aim to promote social interaction (Ollivier, 2018); in this project that interaction will be triggered by situations that are

familiar and interesting to them; to achieve this, the students will answer an online questionnaire where they will express general assumptions they have about the English language. From this perspective, real-world tasks will become the means to generate the students' engagement and their performance within the project. From that performance, the research team will collect relevant information related to the different types of interaction that might emerge; and the impact of integrating educational networks during the educational process.

There will be 4 real-world tasks and each of them will be made up of three stages which will allow the students to be involved in 12 different activities where they will have the opportunity to interact in different ways. Those tasks will be designed by the research team taking into account an online questionnaire that will allow the researchers to characterize the students and the topics proposed in the school syllabus for the third term. The tasks were implemented according to the following schedule

DATE	ACTIVITY	MANAGER
July 19th to 25th	Design of the 4 Real World Tasks for later implementation in Edmodo.	Leydi M. Gaviria D Oscar O. Granados P. Estefania Salamanca E. Onelis C. Varilla B
August 1st	General introduction for students (creation of users, access to Edmodo and development of activities)	Leydi M. Gaviria D Oscar O. Granados P. Estefania Salamanca E. Onelis C. Varilla B
August 1st to 7th	Publication and development of the first Real World Task on Edmodo by students	Leydi M. Gaviria D Oscar O. Granados P. Estefania Salamanca E. Onelis C. Varilla B
August 8th to 14th	Publication and development of the second Real World Task on Edmodo by students	Leydi M. Gaviria D Oscar O. Granados P. Estefania Salamanca E. Onelis C. Varilla B
August 15th to 21st	Publication and development of the third Real World Task on Edmodo by students	Leydi M. Gaviria D Oscar O. Granados P. Estefania Salamanca E. Onelis C. Varilla B

August 22nd to 28th	Publication and development of the fourth Real World Task on Edmodo by students	Leydi M. Gaviria D Oscar O. Granados P. Estefania Salamanca E. Onelis C. Varilla B

Figure 1: Schedule for Real-world tasks application. Source: own elaboration

5.1.2 Artifacts (evidence)

Another essential instrument for data collection in qualitative research is artifacts, according to Córdoba, et al (2015) "artifacts are the result of a deliberate action that produces knowledge or that provides added value to a solution specific". In this sense, in the research project "Enhancing interaction through real-world tasks settled at the educational network Edmodo in a group of secondary ninth graders in a public school" the registration of the artifacts will be carried out through the different activities proposed in the planning of the real-world tasks based on the compilation of videos, screenshots, photos, comments and other exercises requested from the participants and will be required through the Edmodo educational network by the research group.

5.1.3 Logbook (evidence)

The virtual repository of the Universidad de las Américas Puebla (n,d) explains that the logbook "is a notebook in which the progress and preliminary results of a research project are reported. It includes in detail, among other things, the observations, ideas, data, of the actions that are carried out for the development of an experiment or a fieldwork". The repository also narrates that the logbook is an instrument that must be used chronologically according to the progress of the project. Similarly, the logbook according to Menegale (2020 p.106) allows for describing "learning activities... the difficulties you find, the strengths and any other relevant information you wish to add. It can also include images, online links, audio tracks, etc."

These contributions feed into this research project to the extent that it allows to narrate in detail the chronological experiences observed in the Edmodo network.

6. Data analysis

This section will deal with the way in which data was analyzed after being collected from the three instruments mentioned above: Real-world tasks (R-WTs), artifacts and logbook. Then, the findings will be presented and supported by data excerpts in order to establish some relationships with the categories defined by the research group and theory proposed by different authors.

6.1 Data analysis framework

As it was stated in the research design, this project was conducted under a qualitative method since it permits to understand people's experiences (Pathak, Jena and Kalra, 2013). In this line, Hatch (2002) mentions that qualitative research emphasizes inductive rather than deductive information processing, which means that the analysis of information begins with the examination of specific pieces of data gathered from the data collection instruments and moves to general understandings (Hatch, 2002). In other words, it looks for patterns across individual observations of data that lead researchers to come up with general assumptions (Potter, 1996). At this point, it is relevant to mention that data collection procedures were applied from August 1st to August 29th, 2022.

The research group was made up of 4 English teachers (Ts) people who had a direct participation in the case study project. T1 works as a full-time teacher in a rural school of Libano-Tolima teaching primary students. T2 is the researcher who works at San José School where the study was carried out; he is the head of the group and the English teacher of the sample; this situation allowed to make direct observations that were registered as field notes in the logbook. T3 works in a language institute in Villavicencio-Meta, teaching adults, and she

also has an instagram account (@inglesconestefa) where people might find information that allows them to learn English. Finally, T4 is also an English teacher who has more than 5 years teaching in primary and secondary school; she lives in San Gil-Santander. Each member of the group was in charge of designing, implementing and providing feedback of one real-world task in the educational network Edmodo which was the source of the artifacts. It is relevant to mention that data analysis started on August 10th, 2022.

The inductive method applied in this study describes the way in which interaction in a group of secondary 9th graders of a public school was enhanced through real-world tasks settled at the educational network; the research group decided to follow Hatch's model of inductive method for data analysis. He proposed 9 steps to complete a data analysis process inductively (Hatch, 2002, as cited by Trujillo, 2020):

- Read the data and identify frames of analysis.
- Create domains based on semantic relationships discovered within frames of analysis.
- Identify salient domains, assign them a code, and put others aside.
- Reread data, refining salient domains and keeping a record of where relationships are found in the data.
- Decide if your domains are supported by the data and search data for examples that do not fit with or run counter to the relationships in your domains.
- Complete an analysis within domains.
- Search for themes across domains.
- Create a master outline expressing relationships within and among domains.
- Select data excerpts to support the elements of your outline.

However, taking into account Hatch's model, the research group made an adaptation and reorganization of the inductive method in three stages to satisfy the study purpose.

Step 1: After gathering data, the research group held different online sessions in which one of the researchers read aloud the information settled in each instrument; it was necessary to read the information more than three times in order to get familiar with it. At the same time, a preliminary data classification emerged while the research group organized it considering key concepts from the objectives of the study, the research question and the constructs of the literature review.

Step 2: After doing the preliminary data classification in stage 1, the research group pointed to refine that classification and determine an emerging set of categories which Hatch (2002) assimilates to domains. In agreement, Spradley (1979, p. 100) defines a domain as “any symbolic category that includes other categories” and mentions that the members of a domain should have at least one feature of meaning in common. Therefore, it was necessary to assign colors that permit easily to identify what pieces of information, from the different instruments, related with what other; it was reorganized and a label to each category was assigned (codification) as it follows:

- Reactions and likes as a verbal and non-verbal communication: Blue
- Students’ participation through the Real - world tasks: Yellow
- Educative network as a means for interaction: Green

In the same line, some subcategories were identified inside each category after analyzing the data one more time. Finally, it is important to mention that none of the domains that emerged were put aside since all of them were related to the study’s research question, objectives and the theoretical constructs.

Step 3: This final stage helped the researchers to be sure about the existence of enough evidence to support the domains (Hatch, 2002). At this point, a chart was designed to relate the categories and subcategories that emerged after the data analysis. ‘

1. Reactions as a verbal and non-verbal communication.
    A. Peers' work recognition through likes.
    B. Critical positioning.
    C. Comments and replies.
2. Students' participation through the Real - world tasks.
    A. Emerging interaction patterns.
    B. Audiovisual replies.
    C. Contributions based on students' life experiences.
3. Educative network as a means for interaction.
    A. Link external on-line resources and design of information through different networks.
    B. Internet access availability and time flexibility.
    C. Engagement and understanding in the activities.

Figure 2. Categories and sub-categories. Source: own elaboration

As follows, the research group will start describing the findings presented as categories and subcategories, supporting them with the data collected from the instruments including the research group interpretation and providing citations.

6.2 Findings

In this section, the findings from this study are going to be presented following the frame of analysis selected for the research group; some theoretical foundations will be discussed and analyzed taking into consideration the data from the instruments applied during the implementation stage and the implications for the study based on the research question and the objectives.

6.2.1 Reactions as a verbal and nonverbal communication.

Communication according to Hadiani and Dwi (2021, p 283) is an act that "[...]involves the exchange of ideas, opinions, and information with a specific objective," this exchange can take place through verbal and nonverbal communication being the first "[...] a form of communication in which words are used to interchange the information with other people either in the form of speech or writing," (Surbhi, 2015. p.1), meanwhile the second "[...] takes place between sender and receiver with the use of signs such as body language, facial expressions,

and sign language" (p.1). In this project, this type of communication was evidenced through reactions which allow to measure and evaluate the level of satisfaction, interest, and commitment of the participants in a formative action (Farnós, 2020). However, in this study a reaction is understood as all kinds of participation through posts (comments, replies, images, gifs, audios, videos) or likes with the purpose of promoting interaction, obtaining answers or feedback between students, teachers and content. Thus, and according to the authors mentioned above it is considered that the information analyzed on the Edmodo network presents different examples of verbal and non-verbal communication that can be exemplified through:

a. The videos (V1 to V12) where different reactions such as comments, likes, posts, images, gifts and audios among teachers, students and content are evidenced in a general way.
b. The 4 R-WTs published on Edmodo network, based on the scope and sequence of the school for the third term, are the topics that were included: R-WT1 aliments, R-WT2 common diseases in Colombia, R-WT3 Illnesses and R-WT4 Body and pain. According to the themes, several activities contributed to increase the participation and/or reactions that were observed in comments with likes, gifs, emojis, thank you messages, opinions, questions and answers. For instance, in the hangman game (CAP 5) 33 students replied to the post over 36 students who had to do it; in the mind map (CAP11) the result was 31/36 ,in the meme (CAP17) was 36/36, in storytelling (CAP19) was evidenced 32/36, in debate grupal (CAP26) 31/36, in infographic (CAP24) was 29/36 and finally, in Padlet activity (V7) was 33/36.
c. Different notes in the Logbook that demonstrate types of reactions according to the proposed activities:

Day 1 (01/08/2022): “In the activity about creating a mind map despite it

was not explained that the students have to click on a reaction on their classmates' posts, they gave a "like" to their classmates' pictures"

Day 8 (08/08/2022): "Students actively participated in the survey, we obtained 33 votes at the end of the proposed activity in R-WT 2"

Day 21 (21/08/2022): "In the R-WT 3 - Stage 1, the students made a total of 90 comments: making recommendations, answering whether they agree or disagree, and answering questions of the teachers"

d. The relevant comments related to different feelings and emotions during the elaboration of the proposed activities are evident on:

Day 2 (02/08/2022): "The students like the teacher's reaction in the post because they use the like button to check the comment as soon as the teacher gives their feedback"

Day 8 (08/08/2022): The learners expressed to the head teacher T2 in the classroom that they enjoy learning while playing online games related to vocabulary.

Day 26 (29/08/2022):"They expressed their disappointment because they would like to continue using the network for the fourth term".

6.2.1.1 Peers' work recognition through likes. For this project a "like" shows the engagement or the affective impact that a content can generate in a participant during the development of the R-WTs. Accordingly, it 40 likes where observed in R-WT1 (CAP5, CAP8, CAP11); in R-WT2, 27 likes (CAP14, CAP17, CAP19); 32 likes in R-WT3 (CAP21, CAP24, CAP26); and finally 20 likes in R-WT4 (CAP28, CAP30, CAP32). It was notable that the number of likes varied depending on the students' level of acceptance about the contents posted on Edmodo. On the same line, "Like" according to Arimetrics (n.d.) "is a feature incorporated in social networks and other online platforms that allows the user to give positive feedback to any type of content, and in this way connect with what interests them".

On the other hand, Wong (2020) the peers' recognition is the significant act of recognizing the skills, abilities, results or talent of another partner. Given the above, on the Edmodo network it was evident the recognition among peers when, for example, the students observed their classmates' posts and reacted verbally or nonverbally or when there was pair work. In the same line, collaborative work was evident in many activities. For example: in R-WT2 Stage 3 (CAP 19) in the storytelling where students had to follow the sequence according to the comments of their classmates, this activity had 32 comments. Also, the recommendations given in the Padlet located in R-WT3 Stage 1 (V7) where there were many responses (90 in total). Finally, the creation of audios in the activity of conversation by pair work in R-WT4 Stage 3 (CAP 32) with 15 comments, clarifying that each comment was the participation of two students.

6.2.1.2 Critical positioning. Critical thinking according to Bernal, Gómez and Ionice (2019) is a reasonable and reflexive thought that allows greater efficiency in the execution of tasks validating ideas, actions and judgments both own and foreign. From this perspective, the Edmodo network allowed through R-WTs 1, 2, 3 and 4 to generate spaces for participation and debates on topics previously established by teachers. For example, students demonstrated a critical position where they created memes in R-WT2 Stage 2, videos and audios about illnesses in R-WT1 Stage 2, recommendations in Padlet in R-WT3 Stage 1, debate gripal in R-WT3 Stage 3 and conversation in R-WT4 Stage 3. Additionally, the students associated their critical position and answered with their life experiences in the audios from R-WT1 and R-WT4

A1L24: "I have had an illness, every night I have had insomnia and my heart accelerated many times"

A1L1: "I have coronavirus, I feel very sick. I have a headache, I feel very exhausted. I have a sore throat and I have a fever"

A2L1L10 "... I really feel very bad (00:07-00:10)... … you should drink hot drinks and you should go to the doctor (00:26-00:34)

A2L21L28: "I do not feel very well (00:06)... … I think I have the flu (00:13) … I recommend that you take pills and rest… (00:29-00:34)

These types of activities allowed students to critically analyze situations, real and daily events mediated by the opportunity to interact with other peers and freely express their opinions. On the other hand, these types of activities allowed students a constant interaction among peers by expressing solid arguments to be for and against problematic situations, opening their minds to new worlds, concepts and ideas. In consequence, this strategy based on digital literacy fulfilled the objective of promoting interactions between students and teachers in an easier way and with greater participation compared to the beginning of this project where according to T2 "most of them (students) did not they interact as much as they used to in online sessions during covid-19.

6.2.1.3 Comments and replies. According to Diaz (2009b), educational network such as Edmodo provide shared workspaces for the exchange of content and information, incorporate communication tools, have a large repository of digital objects and own tools for generating resources. In terms of considering Edmodo as a workspace to exchange content and information, interaction is evidenced in comments, replies, questions and answers in sentences to each R-WT as well as thanks messages, advice according to the subject, recommendations using the vocabulary seen, writing opinions, among others. In this aspect , students participated in all the activities and it is demonstrated in all the Tasks recorded in the videos (V1 to V12). Further evidence is notable in R-WT1 Stage 1 where most students followed the instructions and responded with simple sentences talking about symptoms, in V2 L29 posted: "My sister has had a fever and cough all day" (1:20) and similar answers were provided by 32 students out of 36.

Moving to Edmodo as a workspace that allows the incorporation of tools, students posted very creative, educational and interesting images and audios. Many artifacts demonstrated that students designed their activities through different apps as it is observed:

In R-WT1 Stage 3 students used Canva and Powerpoint for the design of the mind maps as was evidenced in L23 (MAP1L23) and L19 (MAP1L19) posts.

In R-WT2 Stage 2 students used creator memes for the design of the memes as was evidenced in that evidence in L10 (ME1L10), L19 (ME1L9) and L32 (ME1LL32).

In R-WT3 Stage 1 students used the Padlet (website). In Stage 2 with Canva for the design of the infographics that evidenced in L9 (LINF 1L9), L21 (INF1L21), and L33 (INF1L33).

In R-WT4 Stage 1 paint that evidence in V10 and Stage 2 Canva for the design of the different presentations that evidenced in L14 (PTL14), L5 (PT1L5) and L21 (PT1L21).

6.2.2 Students' participation through the Real-World Tasks (R-WT).

Students' participation to strengthen interaction was directly influenced by the implementation of four real-world tasks since authors such as Hismanoglu and Hismanoglu (2011, as cited in Saragih, 2022) mentions that real-world communication activities have relevant importance in language learning and that the language used to accomplish the tasks facilitates language acquisition. Similarly, Al-Amrani (2022) states that using authentic tasks for on-line interaction promotes students' participation; this is in agreement with Purnawati (2019) who affirms that Real-world tasks are understood as authentic tasks in which students train the abilities, they need to face their realities in their life emphasizing meaning instead of form. For that reason, the research group focuses on analyzing some patterns of interaction that emerged from students' participation during the tasks development instead of language acquisition issues such as grammar mistakes or misspelling. Accordingly to what has mentioned above, the Real-world tasks objectives aimed to simulate daily-life activities where the contents proposed in the school curriculum (3rd term) were included as it is evident on the tasks objectives:

R-WT 1: Exchanging information about the students' experiences talking about ailments through a video and a mind map posted on the Edmodo network.

R-WT 2: Exchanging information about common diseases in Colombia through a video and storytelling posted on the Edmodo network.

R-WT 3: Exchanging information about health: problems and cares using modal verbs on the Edmodo network.

R-WT 4: Exchanging information about the students' suggestion to prevent ailments through games and presentations posted on the Edmodo network.

It was found that the students were engaged in the process due to their participation was notable during the implementation of the real-world tasks: R-WT 1 had an average of 30 out of 36 students who got involved in the task; R-WT 2 had 33; R-WT 3: 28; and R-WT 4: 26, which means that at least 72% of the students participated in each task (V1 to V12) increasing the possibility to find different patterns of interaction. Besides, different notes made by the research group in the logbook also demonstrate students' active participation.

> Day 7 (07/08/2022): "[...] they are participating in the post about the hangman game".
>
> Day 8 (08/08/2022): "Students actively participated in the survey, we obtained 33 votes at the end of the proposed activity in Task 2".

However, it was surprising for the research group that students' participation decreased during the weekdays during the implementation of R-WT3 and R-WT4. They recognized that Real-world tasks settled on Edmodo offered them a certain flexibility in terms of time management and due dates as it was evident on a field note settled on the logbook.

> Day 25 (25/08/2020): [...] "students are mainly posting their activities during the weekend; when I asked them why, many of them said that they have too much homework from different subjects, so they take advantage of the tasks schedule.

6.2.2.1 Emerging interaction patterns. According to Moore (1989, as cited in Hayati Nik Muhammad Naziman, et.al., 2018) there are three crucial interaction patterns that need to be promoted to have a successful teaching-learning process when it is mediated by technology: student-content (Ss-C) interaction, student-teacher (Ss-T) interaction and student-student (Ss-Ss) interaction. These interaction patterns emerged during the development of the real-world tasks but not at the same level.

It is important to mention that Ss-C interaction provides the students with the opportunity to reflect on the content and develop their own understanding based on what they read (Anderson, 2011; Zimmerman, 2012 as cited in Owusu-Agyeman, and Y., & Larbi-Siaw, 2018). For example on stage 1 of the R-WT1, the students had to play an on-line game (Hangman) in an external website in order to gain some vocabulary related to illnesses, then, they had to post a sentence including one of the illnesses or any other they already know on Edmodo; the purpose was that they could be exposed to as much vocabulary as possible (R-WT 1). After playing hangman, 34 out of 36 students completed this stage by posting their comments. In particular, L24 and L11 wrote:

L24: “In the past week, I had a temperature and so much cough, I think that I had flu” V2 (0:11).

L11: “I had a headache the day before yesterday” V2 (1:05).

In terms of Students-teacher (Ss-T) interaction, Wu and Hiltz (2004, as cited in Owusu-Agyeman & Larbi-Siaw, 2018) argues that the teacher’s role has to do with the promotion of group discussion. In the project, T1 tried to play the role proposed by the authors questioning the students in order for the students continue providing further information as it was evident in the Stage 1 of the R-WT 3; in that activity, the teacher posted a Padlet with images that represented some health problems, the students had to post their comments and reply two other illnesses, diseases, or injuries giving some advices to improve it by using modal verbs. Some of them replied to T1 when she tried to promote discussion as it is observed in V7 (0:32

to 0:34) with “To vomit”; after L1 and L11 posted their activity, she asked them “Have you ever vomited?” L11 answered “Yes Teacher Leydi, for eating an expired Candy”. However, when she tried to promote discussion on some other health problems, the students did not answer her questions and no interaction emerged. For example, with “To break bone” in V7 (0:38 to 0:39), after four students posting their activities, T1 asked “Have you broken a bone? which? Why?, but there was no answer, probably because they were interested in strictly following the instructions. Compared with other stages where more than 30 students got involved, in this stage 25 out of 36 students at least posted their activities.

Finally, it was also possible to identify Students-Students (Ss-Ss) interaction, Owusu-Agyeman, and Larbi-Siaw (2018) affirm that it propitiates a space for them to interact and share ideas through digital means. In this project that digital means is represented by the educational network Edmodo and Ss-Ss interaction was mainly promoted in R-WT4 where the students had to work in pairs; each of them had to watch a video about some parts of series episodes in which people talk about health problems in real-life situations. Then, they had to take turns, record what they said in each turn and post them on Edmodo following a sequenced conversation. In that activity, each student made their posts based on what his/her classmate said before promoting interaction among them as it is evident in A2L1L10 or A2L11L13.

6.2.2.2 Audiovisual replies. Educational networks are an excellent means of sharing and exchanging all kinds of content and information (Díaz, 2009b). A clear example of this, is the facility that they have to share audiovisual contents which have three main characteristics: (a) offer the possibility to work autonomous learning, (b) train in the use of ICTs and (c) increase the interest of students in curricular content, both conceptual and attitudinal (Marcos & Moreno, 2020). Among this content is to highlight the audiovisual content that for this project are the different productions made by students in response to the activities proposed in each task. After analyzing the information found, we conclude that the students enjoyed the elaboration of artifacts (audiovisual content) highlighting creativity, recursiveness, critical thinking, peer collaboration, computer security, among other qualities that are undoubtedly part of digital literacy, being this according to Hague and Payton (2010) a set of functional skills that allow the student participating in this project to be able to find all kinds of information, analyze it, select it and use digital technology in all areas of life. This is evident in:

- Creation of mind maps about illnesses proposed in R-WT1 Stage 3
- Generated memes about illnesses symptoms in R-WT2 Stage 2. Other example in R-WT2 in V6 where they wrote a story following their classmates ideas.
- Elaboration of infographic in R-WT3 Stage 2
- In the R-WT4 it is evidenced in three stages: Stage 1 the drawings, Stage 2 the presentation and Stage 3 audio recording.

In the same line, some observations of the logbook evidenced in Day 9 (09/08/2022) “there are interesting and funny memes with suggestions, advice, the participants' own experiences regarding diseases, and tips for the care and prevention of symptoms”.

On the other hand, there was generally less student participation in R-WT1 Stage 2 where they should describe a similar experience including some of the symptoms and recommendations to recover health in a short video or an audio. This is evidenced in the logbook:

Day 4 (04/08/2022): "[...] most of the students did not like the second Stage of Task 1 because they felt embarrassed about posting videos",

Day 8 (08/08/2022): "the teachers could listen and correct the student's pronunciation despite the fact that they felt ashamed by posting their audios or their videos"

Day 9 (09/08/2022): "It is evident that some students didn't feel comfortable recording themselves because there were only 7 videos and the rest of the posts were audios…" This example is a general rejection regarding activities where students should record videos for causes related to fear of making mistakes in pronunciation, fear of comments or teasing from peers and timidity when communicating.

According to Brown's (2000), as cited in Sari, 2018 p.7) "...interaction is the collaborative exchange of thoughts, feelings, or ideas between two or more people, resulting in a reciprocal effect on each other"; that is why it can be conceived as a social phenomenon that involves mainly to Ss-Ss and Ss-T patterns of interaction. In the same line, Krashen (2013) considers that students can acquire real-life communication strategies when they are involved in continuous interaction. This was noticed on A2L21L28 and A2L32L34 where it is possible to listen to two pairs of students talking about a health problem that they have had and some pieces of advice to get better. In that way, the research group wrote on Day 23 (23/08/2022) in the logbook: "It was evident the overuse of the translator in some of the students' posts"; similarly, L18 posted in V9 (1:35) "If I would have a surgery because with this if I have any imperfection in my body with the surgery I can solve it and feel better about myself". Unfortunately, in this activity, it is also possible to identify that the students seem to be reading a script, probably because they did not feel confident enough with their language competence.

On the other hand, there was a situation that the research group considered important to highlight: by the time R-WT 4 was in progress, L9 had lost her internet access and had also broken one of her legs; for that reason, she was not attending classes and had no information

about what the real-world task was about and the due dates. Stage 3 required pair work and one of her classmates (L26), who was already part of a pair, let her know the instructions and offered to do the stage with her no matter if she had to do it twice. L26 went to L9's house to pick up L9's contribution, got back home and posted both parts. That is why L26 was involved in two different products of stage 3: A2L6L26 and A2L9L26 demonstrating empathy since Riess (2017) as cited in Chowdhury and Shahed (2021) mentions it is about sharing needs between individuals promoting pro - social behavior. In this case, L26 understood L9's situation and decided to help her on her own, probably due to a friendship relationship existing between them.

6.2.2.3 Contributions based on students' life experiences. It was evident that the R-WTs had a positive influence in terms of promoting interaction when they were directly related with the students' life experiences. This is in agreement with the assumption that being involved in real-world tasks promote personal interest and involvement in the activities (Thakur, Al Mashani, and Almashikhi, 2019). During the implementation stage of the project, some data that support the author's idea was found in V7 that evidence that 31 out of 36 students participated in the third Stage of R-WT 3 where they had to post if they would get an esthetic surgery, support their ideas, and reply to one of their classmates' contributions in order to generate interaction.

L29: I wouldn't want to have plastic surgery because I don't see the need to spend money on it and if I had surgery it would only be on my stomach.

T1: Hello L29. Thanks for your contribution. I would like you to explain me a little bit about stomach surgery. Check wouldn't.

L29: Thanks teacher for your correction. I want to have plastic surgery on mi stomach because I think I would look better without a few extra kilos.

T1: Hello Yuliana, thanks for explain to me. Have a nice day!

L29: Ok teacher, good night.

Based on this piece of data, it was possible to infer that L29 actually believes that she suffers from being overweight. At the same time, this piece of data also demonstrates that there is an interaction improvement, specifically in terms of Ss-T interaction since L29 was able not only to post her answer to the initial question proposed in the instruction, but also to exchange further information asked by T1.

Another sign of interaction enhancement when students support their interventions in their life's experiences was demonstrated in the meme creation proposed in the stage 2 of R-WT2 where the students had to post symptoms for common illnesses in Montería and then to post again adding other symptoms to one of their classmates' memes. L28 posted ME1L28 where he does not mention any symptoms but his post refers to the covid-19 emergency that somehow affected everyone's life. Then, L1 replied in ME1L1R28 with a meme in which he mentioned one of the Covid-19 symptoms generating Ss-Ss interaction.

A third example of the positive effects that the students' life experiences to promote interaction was evident with a L9 answer to stage 2 of R-WT4. In that activity, a link for an on-line word search was posted in order for the students to get familiarized with some health problems (fever, headache, stomachache, cough, cold, backache, cut, broken leg, toothache); then, they had to choose one of the illnesses from the word search and post a short presentation about it. As it was mentioned in the discussion of the previous category, L9 had broken one of her legs during the implementation of the project and presentation was about the health problem she had just suffered as it might be noticed in PT1L9-BYL26. From this piece of information two interesting aspects were considered: the presence of Ss-C interaction at the moment of getting involved in the word search through Edmodo, and the evident connection between the L9 situation and the health problem she presented in her post.

6.2.3 Educative networks as a means for interaction.

Education has been confronted due to the different situations that have arisen in the

world as it was Covid-19. One of the most challenging implications that Covid-19 brought was the need to move to virtual education resulting in the use of educational networks. In that sense, this project proposed to enhance interaction through real-world tasks settled at the educational network Edmodo in a group of secondary ninth graders in a public school. Edmodo design allowed the researchers and the participants to use it functions tools to carry out a dynamic and diverse development in the application stage on the network, also, Edmodo was conceived as a new on-line learning environment digital website that engaged the students due to its similarity to Facebook evidenced on the interface (Kruawan, Sukanya and Paster, 2019); one of it characteristic was the easy access, evidenced on the field notes made by the research group in the logbook: “Some students downloaded the Edmodo network app to their cellphones” Day 1 (01/08/2022); and regarding the different internal tools of the network itself, is recorded on the entry corresponding to Day 2 (02/08/2022) in the same instrument: “The students can interact on the network no matter the time”, the management of these tools enhanced interaction between researchers, peers and content, because it was possible to receive notifications about the instructions, share and participate through: comments, images, likes, replies, opinions and experiences; uploading and creating audiovisual content, tags, generate feedback, participate in surveys and use external resources such as as websites, games, social media, and acquire input from the R-WTs, among others. Another way to interact on on-line network is presented by Diaz (2009a) who highlights the role of teachers in that process since he/she might be able to promote interaction through the design and implementation of didactic sequences and activities that are capable of triggering learning through the search and selection of information, analyzing the feedback of other participants, publication of own creations, and the revision and improvement of texts.

6.2.3.1 Link external on-line resources and design of information through different networks. The research project included an approach to the contents proposed on the third term school curriculum through a serie of activities embodied in the different stages of the all R-WTs by suggesting the use of external online resources available on the web for the development of activities as it was evidenced on CAP5 on-line game, CAP8 Instagram, CAP11 Website of illnesses glossary, CAP17 Tik Tok video, CAP21 Padlet, CAP28 memory game, CAP30 word search and CAP32 Youtube. Additionally, it was suggested in R-WT1: Canva, R-WT2: “meme generator”, R-WT3: Pixtón-Canva, R-WT4: Microsoft Paint. It was noticed through the Artifacts that most of the participants of the project used the external apps suggested in the instructions to accomplish the activities by exchanging opinions and sharing their own experiences on the Edmodo network. Other examples were in R-WT2, Stage 2 with the creation of memes to exchange information about common diseases in Colombia as was evidenced in L2 post.

And in R-WT3 Stage 1 where students exchanged information about health problems and cares by using modal verbs as was evidenced in the Padlet V7 .

In those tasks, there was much more interaction due to external apps being linked to it,

a clear example of the aforementioned, it is established in the systematization of the information, where it was stated, thanks to the data obtained there was the correct use of external apps that were suggested by the teacher.

The new technology tools such as apps, games, videos among other digital media tools have adopted cultural aspects existing around communities, which has allowed a greater approach and communication among people who converge in a specific place, regarding to this information. Jenkins, et al. (2006, as cited in Cortés et al., 2016, p.56) affirms that "...technologies have brought cultural expression closer to any user, placing the exchange of information and stories in a communicative context between the media and society, and where we can all be participants," it is so, this new digital era is permeating the way in which education is being conceive and the way educational strategies are being designed to strengthening teaching processes, in different learning environments, with these new applications students can generate more efficient and dynamic academic and social connections according to their own interests and previous knowledge making them feel part of a community and permitting them to interact with their peers and with people around them.

6.2.3.2 Internet access availability and time flexibility. After analyzing the data, the group of researchers were able to find a pattern related to the schedule on Edmodo. It was observed that, a substantial number of the students joined and developed the proposed activities through the R-WTs on weekends, being the night the favorite time to post, likewise, there was no time restriction, so, they could generate content at any time of the night. This became an important aspect that promoted interaction and was evidenced in Logbook Day 1 (01/08/2022) that the students could interact on the network no matter the time; and on Day 25 (25/08/2022) “The students are mainly posting their activities during the weekend”. Some further evidence regarding time flexibility was observable because the network allows checking the date and the time of the post. Then, it is possible to evidence in V2 that L12 posted his comment at 7:21 pm; in V5, L6 posted her meme on August 15th (holiday) at 10:45 pm and many students did the same.

In the same way, it was necessary to examine the situations that paved way to the sample behavior towards the schedule in which they were working during the application of the activities:

> Participants must access from their homes because the internet connection is more suitable for work compared with school. In this way the Logbook is mentioned as evidence in “Day 1 (01/08/2022): The internet connection in the school is very slow which affects the process of joining the network on the first day.”
>
> Students had the option to join the network and work at the time that they considered were most comfortable and appropriate.
>
> The students who participated in the research project were saturated with activities related to their academic duties at school during the week, for that reason, they only had time on weekends to participate in the project. It is possible to evidence this in the Logbook on Day 10 (10/08/2022) “At this time of the week, the students have already started the development of the tell a story activity belonging to R-WT2 Stage 3. There is

still not the expected amount of participation, but it is because the students have a lot of homework and activities from other academic subjects". In the same sense on Day 14 (14/08/2022) "As evidence of a lot of participation today, we can conclude that the weekend is the time that the students allocated to carry out the Real-world task" and on Day 19 (19/08/2022) "Today is Friday, and no student participated in Task 3. I believe the students are tired of school activities all week."

With regard to the Internet, Mc - Kenna and Bargh (2000, as cited in Moral 2009), state that the Internet has currently become the main space for social interaction since it allows communication and interaction with other people through the computer and the use of the network with email, instant messaging, groups and chats. In that sense, the research project "Enhancing Interaction through Real-World Tasks settled at the educational network Edmodo in a group of secondary ninth graders in a public school", proposed a bilingual virtual learning environment using internet to generate interaction of different types through the activities designed by the research group, it was essential that the sample and teachers had excellent access to internet.

6.2.3.3 Engagement and understanding in the activities. The research project implemented a series of activities divided into stages, which were designed and elaborated in detail taking into account the interests and preferences of the participants, the researcher group concluded that these exercises had to fulfill some important purposes like:

- Academically, these activities included in the Real-World Task were taken from the curriculum of the English area of the institution.
- Individual, one of the hidden purposes of the project was to empower the goals and performance of the participants.
- Social, the project enhanced not only the interaction among peers, teachers and content, but allowed the sample to be and feel part of a community by exchanging, searching and

classifying information on the web with meaning and critical thinking.

- The activities proposed on each task, adopted certain aspects inherent in the context of the participants, such as perceptions, and the situations that involve them. an example of this was, the topic related to the most common diseases in the Monteria-Córdoba, or when the students gave advices and suggestions considering their own experiences on a specific matter, this was evidenced in the logbook, "Day 9 (09/08/2022): Students are very creative in designing "memes". As a final output of Task 2- Stage 2, "there are interesting and funny memes with suggestions, advice, the participants' own experiences regarding diseases, and tips for the care and prevention of symptoms." as was evidenced in ME1L5 ME1L21 ME1L23R34 post.
- The activities proposed in the R-WT should have clear instructions, be innovative, dynamic, it is essential to implement the principles of digital literacy, and use digital media tools, such as apps and websites, that generate motivation, interaction and active participation by the sample.

As a final output of R-WT2 Stage 2, it was mention “[…] the principles, and elements (access, engagement, understanding, use) that make up digital literacy are put into practice when the participants: collaborate together, are objective and think critically, and create and communicate using rich media as images”. The above on Day 4 (04/08/2022): “Most of them mentioned that they liked the network and the instructions are clear to do the activities.” and also on Day 9 (09/08/2022): “Students are very creative in designing "memes". Also, most of the participants showed interest and motivation when they participated in the different activities proposed on the network through: likes, comments, replies, infographics, creating memes, expressing ideas or experiences, giving health tips, participating in debates, writing a collaborative story, voting for favorite jobs, guessing drawings, using external apps, among others evidenced in the Artifacts.

7. Conclusions

Based on the data analysis collected during the implementation stage of the project, it is possible to state that the combination of real-world tasks and a digital learning environment, as it was the educational network Edmodo, effectively enhances interaction since 33 out of 36 students participated in the activities propose in the real-world tasks; two of the students who did not involve quit the school and the third one, said that she could not log in Edmodo which it is not coherent with the information gathered because it was possible to see that she completed the registration process and created her profile, it could only be lack commitment. From the students' participation, three traditional patterns of interaction emerged: Students- Students interaction. Students-Teacher interaction, and Students-Content interaction Pérez (2009); however, it was interesting that an unexpected interaction pattern emerged: Students-Educational network as it became a means to participate.

From a different perspective, this project also permits to affirm that real-world tasks lead the students to develop critical thinking, creativity, collaborative work, their commitment, and digital literacy which are essential abilities to address not only academic duties but lifelong learning to understand new realities, interact and transform them from an ethical perspective.

Unfortunately, some limitations were faced during and after the implementation of this project. Although this educational network had a positive impact in the students' interaction, and that further research could be carried out for deeper reflection, Edmodo was definitely closed on September 22nd, 2022; however, the research group suggest to different educational networks such as Classdojo, Schoology, and Otra Educación to be studied in similar or different contexts to determine their effectiveness in terms of enhancing the students' interaction.

Dealing with technological resources was another limitation that the project had to overcome since there was no internet connection that permits access to Edmodo or any other on-line resource making it difficult if any student needed to show his/her work to the teacher in a face-to-face class to ask for correction or for explanation. That is why, taking advantage of the

students' responses in the on-line questionnaire applied at the beginning of the project, the real-world tasks were conceived to be developed at home. It is suggested to look for other possible solutions from further research about digital literacy.

From a respectful position, it is suggested to consider the implementation of similar projects using different educational networks implementing the real-world tasks with participants from different ages and contexts; it will be interesting to move beyond and integrate other disciplines in the process since adopting or adapting innovative bilingual learning environments positively impacts the students' engagement, participation and interaction, generating opportunities think about transversal education where bilingualism might work as a way to know about other subjects.

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9. Appendixes

9.1 Appendix 1: Consentimientos informados.

9.2 Appendix 2: Cuestionario de caracterización.

9.3 Appendix 3: Real-world tasks.

9.4 Appendix 4: Artifacts.

9.5 Appendix 5: Logbook.

9.6 Appendix 6: Codes.