ESCUELA NORMAL
DE ATIZAPÁN DE ZARAGOZA

TESIS DE INVESTIGACIÓN

THE DIDACTIC USE OF INNOVATIVE TECHNOLOGICAL RESOURCES FOR TEACHING ENGLISH IN SECONDARY EDUCATION

QUE PARA OBTENER EL TÍTULO DE

LICENCIADO EN ENSEÑANZA Y APRENDIZAJE DEL INGLÉS EN EDUCACIÓN SECUNDARIA

P R E S E N T A

GUILLERMO CRUZ RAMIREZ

A S E S O R

DRA.SANDRA MARIA DEL CARMEN FLORES CASTILLO

ATIZAPÁN DE ZARAGOZA, ESTADO DE MÉXICO JULIO 2023

ESCUELA NORMAL DE ATIZAPÁN DE ZARAGOZA

ASUNTO: Dictamen de aceptación
de Trabajo de Titulación.

Atizapán de Zaragoza, Estado de México 18 de julio de 2023.

C. CRUZ RAMIREZ GUILLERMO
ALUMNO DE LA LICENCIATURA EN ENSEÑANZA Y APRENDIZAJE DEL INGLÉS EN EDUCACIÓN SECUNDARIA
P R E S E N T E.

El que suscribe, Director de la Escuela Normal de Atizapán de Zaragoza, hace de su conocimiento que una vez revisado y evaluado su documento recepcional titulado, THE DIDACTIC USE OF INNOVATIVE TECHNOLOGICAL RESOURCES FOR TEACHING ENGLISH IN SECONDARY EDUCATION en la modalidad, TESIS DE INVESTIGACIÓN le informo que, con base en la normatividad vigente se cubrieron los requisitos para continuar con el proceso respectivo para sustentar su examen profesional en la Licenciatura en Enseñanza y Aprendizaje del Inglés en Educación Secundaria.

No omito comentarle que deberá cubrir en tiempo y forma, con los requisitos establecidos administrativamente para este fin. Le deseo el mejor de los éxitos en esta última etapa de su formación inicial.

GOBIERNO DEL ESTADO DE MÉXICO
SECRETARÍA DE EDUCACIÓN
SUBSECRETARÍA DE EDUCACIÓN SUPERIOR Y NORMAL
DIRECCIÓN GENERAL DE EDUCACIÓN NORMAL
SUBDIRECCIÓN DE ESCUELAS NORMALES
ESCUELA NORMAL DE ATIZAPÁN DE ZARAGOZA
C.C.T. 15ENL0008Y
EDOMÉX
DECISIONES FIRMES, RESULTADOS FUERTES.

A T E N T A M E N T E

MTRO. JONATHAN RANERO BARRERA
DIRECTOR DE LA ESCUELA NORMAL DE ATIZAPÁN DE ZARAGOZA

Agradecimientos.

Agradezco especialmente a la Doctora Sandra Flores Castillo por guiarme de forma ética y responsable durante toda mi carrera universitaria, el acercamiento de forma tan natural conmigo lo agradezco de todo corazón.

De forma muy especial agradezco al enorme apoyo en mi educación al profesor Fabián Montiel Pérez, que en su poco tiempo dándome clases me mostró cómo es que un profesor ideal debe ser, reconozco el esfuerzo y dedicación que tuvo, que tiene y que siempre va a tener con sus estudiantes, es admirable y grato saber que existen profesores tan profesionalmente preparados y que siempre serán un ejemplo a seguir.

Con mucho respeto reconozco el gran apoyo que me dio la Escuela Normal de Atizapán de Zaragoza y a los maestros Raúl Romero Ibarra y Juan Carlos que me ofrecieron un panorama ético correspondiente a un profesor, a su acercamiento personal y profesional conmigo y a la motivación que me brindaron durante mi carrera universitaria.

Finalmente, quiero dar las gracias a todos los integrantes de la Escuela Normal de Atizapán de Zaragoza que día con día trabajan y se esfuerzan para ofrecer la mejor preparación a futuros profesores y permitirme el honor de esta investigación y aplicación de mi propuesta.

Dedicatoria

Este trabajo lo dedico principalmente a mis padres, Guillermo Cruz Martínez y Refugio Ramírez Méndez y a mis hermanas Cecilia y Abigail quienes con su apoyo constante me motivaron a seguir creciendo de forma intelectual, espiritual y física, a tener metas y retos constantes que me impulsaran a ser mejor, los amo con todo mi corazón y sé que siempre puedo contar con ellos.

Así mismo a mi hermana Cecilia por apoyarme en cada momento difícil que tuve durante toda mi carrera académica, aprecio el amor, la paciencia y el desinterés con el que se muestra siempre, admiro su esfuerzo que de forma indirecta me reta a ser mejor todos los días.

También a mi abuelo Ramón Trinidad Cruz Pérez que me enseñó desde pequeño a ser una buena persona de forma desinteresada, me educó y cuidó, y que con sus actos fue mi ejemplo de cómo es que debería de ser un caballero, así como seguir un camino de rectitud, honestidad y honor.

A mis amigos Eric y Mariana por siempre mostrarme perspectivas diferentes de la vida, también agradezco su apoyo de forma desinteresada y honesta durante mi carrera universitaria, gracias también a mi amigo Alexis que de forma eufórica y con ímpetu me apoyó y me motivó a seguir estudiando.

INDEX

Introduction

In the field of education, the teaching of English as a foreign language in secondary education has become increasingly relevant. The need to train students with solid communicative skills in this language has become a fundamental objective for their future academic and professional development. Aware of this reality, the present thesis entitled "The didactic use of innovative technological resources for teaching English in secondary education" has focused on exploring new ways to enhance English language learning through the use of educational technologies and innovative pedagogies.

This study has focused on the didactic use of innovative technological resources for teaching English in secondary education, based on the curriculum mapping approach proposed by Sergio Tobón. Through the implementation of this proposal in Federal Secondary School 11 "Licenciado Benito Juárez" and using the action-research methodology, we have sought to improve student learning, promoting the development of key linguistic and communicative competencies in the English language.

In this context, we have relied on the valuable contribution of Sergio Tobón and his conceptual mapping that helped me to organize the whole proposal, providing a solid structure for the creation of the proposal.

In the framework of this research, I applied Tobon's cartography in the field of English language teaching in secondary education in order to favor the structure of the proposal.

Likewise, this research was carried out at Escuela Secundaria Federal 11 "Licenciado Benito Juárez". This educational institution has been the setting for the implementation of

the proposal designed, which has sought to integrate innovative technological resources in the teaching of English. Aware of the potential of technological tools in the teaching-learning process, mobile applications, online platforms, language learning software and interactive multimedia resources have been explored to enrich pedagogical practices and encourage student motivation and commitment. From this search, the technological resource "Discord" was selected as a didactic pedagogical support tool.

In order to evaluate the effectiveness of the implemented proposal, the action research methodology has been used. This approach is characterized by a close collaboration between the researcher and the teachers involved, through the identification of problems or areas for improvement in the teaching of English and the implementation of specific interventions. In this way, we have sought not only to develop and apply the proposal, but also to analyze its impact and adjust it according to the results obtained.

Problem statement

Technology has improved our lives in many ways, from communicating with friends and family to accessing information and educational resources. However, not all educational institutions have taken full advantage of technological advances to improve the quality of teaching. This thesis focuses on Federal Middle school 11 "Licenciado Benito Juárez" in particular and its poor use of technological resources in the learning of English Education. This research seeks to understand the current state of the application of these resources, as well as to determine the main barriers that prevent the full use of these tools in English Education. This thesis also proposes a plan to increase the implementation of technology in the classroom. With this, we hope to provide recommendations to improve the teaching of English at Federal School 11 "Licenciado Benito Juárez".

According to the Planes y Programas 2022 para educacion secundaria, it is intended to work from 4 formative fields with different types of learning, the formative fields to work are (formative field languages, formative field knowledge and scientific thinking, formative field ethics, nature and society and formative field of human and community), What the 2022 study plans and programs propose is project-based learning, these plans and programs have priority with respect to innovation only cover primary education and very few cover secondary education, giving priority to third year groups. Although there is a follow-up for secondary education in the section on expected learning, the use of technological resources is not proposed other than the use of the classroom for the follow-up of some work and tasks, it is here where I ask myself the question: is the use of the classroom sufficient to meet the learning needs of students through technological resources?

For my thesis, I was guided by the competency-based approach, because through it I have had the opportunity to acquire the different competencies necessary to develop in my professional field. These competencies cover both technical and general skills, such as organizational skills, critical thinking and communication skills. Different modalities of career degree offer me the possibility of obtaining an accreditable degree, such as the portfolio of evidence, the internship report and the thesis. After conducting a diagnosis to determine my major area of opportunity in terms of my competencies, I felt very satisfied with my achievements in them. This satisfaction motivated me to go deeper into one of the strongest competencies, technological competencies, and I decided to work on a thesis to be able to measure the degree of knowledge I currently have.

I chose the modality of this document because I feel very strong with respect to my competences where the critical use of all types of technological resources applied to education is developed, however it is important to mention that the proposal of the document below arises as a theoretical solution of the correct use of technological resources for a middle school English class.

During my different internships I have been able to observe that although plans and programs are used in middle school English, the use of technological resources is almost nonexistent, generally in a conventionally traditional English class, there is a didactic sequence, and conventional activities such as "worksheets" or the use of the English book, but although these activities are effective and favor the learning of students in a L2, where is the innovation and its didactic use?

In general, the use of different technological resources is limited to the use of a projector and a computer in a classroom, it is necessary to clarify that only going from presenting a written topic on a blackboard to a presentation on a projector is only a part of what should be the use of different didactic resources, for example, if a teacher presents flashcards in a class to teach verbs, but he needs to innovate in his English class, and he scans the flashcards and presents them on a projector in his next class; is this innovating in a class and making an adequate use of technological resources?

With the previous question, I want to emphasize that the use of different didactic resources is limited by a basic vision of their use. Is the simple fact of using a didactic resource an innovation? Well, it is not only the use of that resource, but also its purpose.

In this sense, it is essential that teachers have different didactic resources and use them in an appropriate way in the classroom, through the use of different technological resources and following an order that I will present in this paper, so they can improve student learning; The goal is also to make students realize that they can use technology to learn and not only as something recreational, as well as to improve motivation and promote creativity in English classes as a secondary objective.

This work proposes the use of technological resources to improve the learning of middle schoolstudents, having as subject of analysis the group 1E of Escuela Secundaria Federal 11 "Licenciado Benito Juárez". The project is carried out during the professional practices as well as the practice days, making use of projectors, computers and other technological resources provided by the school, as well as the independent use of different resources used by the students of the analysis group from their homes.

Thus, this paper aims to make an innovative proposal for the use of technological resources, specifically Discord, in middle school English classes in order to break with the traditional structure of both teaching and evaluation in these classes.

Purpose of research

To innovate through the appropriate use of Tic, TAC and Tep in the teaching and learning of a L2, which implies contrasting the current use of technological resources in secondary schools and their evident results in the learning of first year students.

To this end, it is necessary to review current plans and programs to identify whether such resources are being used and, if so, whether they are being used effectively or poorly.

Supposed

With qualitative research we can make it clear that there can be one or more assumptions, in this case they are the following:

1- Through research we can come up with a proposal using technological resources that can be used for teaching.

2- With the appropriate use of technological resources, students will improve their English language learning.

Delimitation, justification and feasibility of the project.

Delimitation:

The delimitation of this thesis project focuses on the application of innovative technological resources for teaching English in secondary education, specifically in the

"Escuela Secundaria Federal 11 'Licenciado Benito Juárez'". A group of 1st grade students will be considered and will focus on the use of interactive digital tools and educational platforms (Discord) to improve the acquisition and development of English language skills. The project was carried out during a determined period and the impact of these resources on the students' learning will be evaluated.

It is important to mention that this research can be used for further research, however in the present work is limited to the teaching of English language, although it can also be used in other subjects as well as technologies.

Justification:

The rationale for this project lies in the need to incorporate innovative technological resources in teaching English in secondary education. Technology has advanced rapidly in recent years and its integration into the educational setting can offer unique opportunities to enhance student learning. In addition, there has been a growing motivation and familiarity of students with technological devices and tools, which can be leveraged to enhance English language instruction and promote more dynamic and interactive learning.

The choice of "Escuela Secundaria Federal 11 'Licenciado Benito Juárez'" as the application context is based on its importance as an educational institution in the area, as well as its interest in implementing innovative pedagogical approaches. In addition, it is considered relevant to address the teaching of English in secondary education, as it is a crucial stage for the development of students' language skills and their preparation for future academic and professional opportunities.

Feasibility:

The feasibility of this project is based on different aspects. In the first place, we have the support and collaboration of the management and teaching staff of the "Escuela

Secundaria Federal 11 'Licenciado Benito Juárez'", which facilitated the implementation and follow-up of the project. In addition, the appropriate technological resources, such as electronic devices and Internet access, will be available to carry out the proposed activities.

Subject of study

The study subject of this research consisted of a sample of 10 students belonging to "Escuela Secundaria Federal 11 'Licenciado Benito Juárez'". This educational institution was selected due to its relevance in the local context and its willingness to participate in the research project.

The selection process of the students was carried out considering specific criteria, such as the level of knowledge and performance in the English language, the availability to participate in the proposed activities and the representativeness of the different school grades. The inclusion of students with different levels of proficiency in the language was guaranteed, which made it possible to obtain a diverse and representative sample of the school's student population.

Importantly, informed consent was obtained from the students and their parents or legal guardians prior to their participation in the study. They were provided with a detailed explanation of the objectives, procedures and possible benefits of the research, as well as the guarantee of confidentiality and anonymity in the handling of the information collected.

The final sample of 10 students comprised students from middle school 1st grade, ensuring an equitable and representative distribution in terms of gender, level of English language proficiency and previous participation in educational activities related to the use of technological resources.

The selection of this topic of study was based on the relevance of analyzing the need for the use of innovative technological resources in the teaching of English in a sample of students of the "Escuela Secundaria Federal 11 'Licenciado Benito Juárez'". Through this sample, we sought to obtain significant information and data that would allow us to evaluate and analyze the impact of the technological intervention on the learning of the students involved.

In conclusion, this study focused on a sample of 10 students from "Escuela Secundaria Federal 11 'Licenciado Benito Juárez'", selected purposively and following specific criteria to ensure representativeness and diversity in terms of English language proficiency level. These students participated on a voluntary basis, with the informed consent of the students and their parents or legal guardians.

Theoretical Framework

The change in education, application of technological resources

When looking at the proposals and expected learning in the Planes y Programas 2022 para educacion secundaria in the English annex for secondary level, it is not surprising that the use of technological resources as a means of learning English is almost nonexistent, maybe only a small follow-up can be found through the educational web service "google classroom" where teachers attend homework topics and work with their students.

Although the Planes y Programas 2022 para educacion secundaria propose different expected learning, and are available for teachers to use them in their lesson plans for English classes, the use of technological resources for student learning is not encouraged, not even the use of a projector or computer is mentioned.

With the emergence of technological resources, the change in education has come to be called the information society, thanks to the tools offered by the Internet, Its available to everyone, it is for this reason that these tools have a strong impact on education, dealing with much more dynamic content, with interaction between students, encouraging constantly active attitudes and giving students a better formation.

Some of these technological tools are mobile applications that facilitate the development of other skills, for that reason in recent months, the use of technological tools has helped education, with the interaction of teachers, students and even parents to use them from home due to the pandemic caused by Covid 19.

Rojas, Pérez, Torres and Peláez (2014), mention that "technological resources are platforms that have been positioned in the last decade, serves as support for teaching." (p.233).

Technological resources are understood as those support tools for the realization of different activities. In the academic environment, they are used to satisfy the needs that lead to achieve the objectives, such as: teaching and learning of the teacher and student.

Rojas, Pérez, Torres & Peláez (2014) mention that "technological resources appear in the last decade as a useful platform for the education of the teacher to his student" (p.233). That is why the different resources form a great change in society and even more in the educational field.

English language education.

In learning English, there are generally four main skills: listening, speaking, reading and writing. Each of these skills is composed of microskills and macroskills that are

fundamental for their proper development. Below, I will briefly explain what each of them consists of and mention some of the associated microskills and macroskills.

Listening:

Macroskills: This skill focuses on understanding and processing auditory information in English.

Microskills: Some related microskills include identifying key words, understanding the pronunciation and rhythm of speech, the ability to follow instructions, identifying details, and inferring implicit information.

Speaking:

Macroskills: This skill involves the ability to express oneself verbally in English in a clear and coherent manner.

Microskills: Some necessary microskills are the correct pronunciation of English sounds, fluency in oral expression, the ability to formulate grammatically correct sentences and questions, the appropriate use of vocabulary, and the ability to carry on a conversation.

Reading:

Macroskills: This skill focuses on comprehending written texts in English, such as books, articles, newspapers, etc.

Microskills: Some associated microskills include understanding vocabulary and grammatical structures, identifying main ideas and details, inferring implicit information, making connections between ideas, and reading different types of texts (narrative, informational, academic, etc.).

Writing:

Macroskills: This skill involves the ability to communicate in writing in English clearly and effectively.

Microskills: Some relevant microskills are the ability to structure and organize ideas, the writing of grammatically correct sentences and paragraphs, the proper use of punctuation, the accurate choice of words and vocabulary, the ability to write coherent and persuasive texts, and the correction of spelling and grammatical errors.

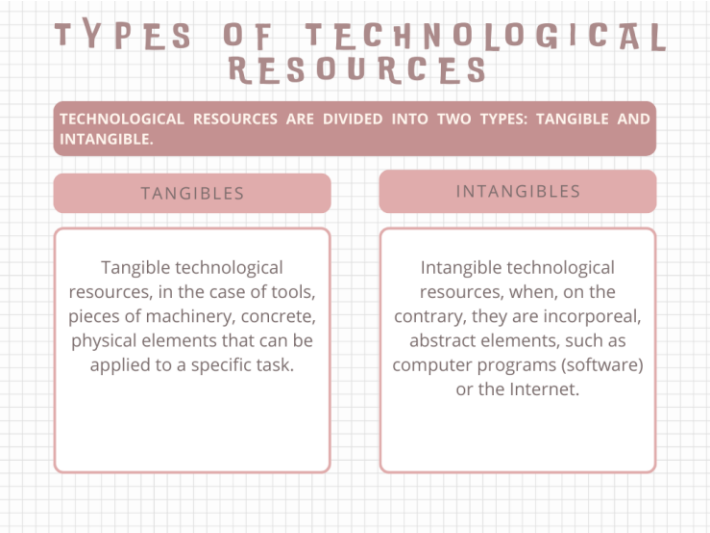
Definition of Technological Resources**.**

It is a means that uses technology to fulfill a specific purpose. There are different types of technological resources, in this way we find tangible technological resource (such as a computer, a printer, a cell phone, a printer or another machine) or intangible technological resources (a system, a program, or a virtual application).

The following graph provides a better visualization of the difference between technological resources.

Figure 1

Types of technological resources.



These resources are used as part of a pedagogical and didactic strategy to facilitate student learning and to know the needs of students in order to strengthen student abilities.

However, there are also 3 different types of technologies to be taken into account, and a quick mention of these are the Tics, the Tacs and the Teps.

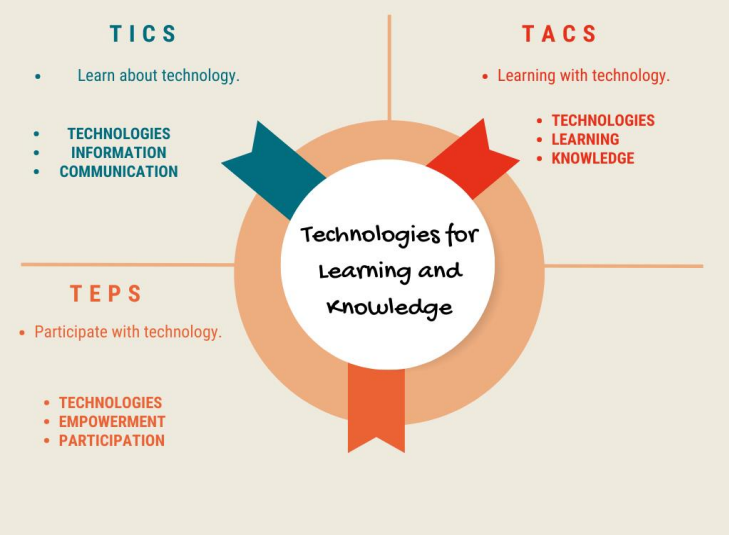
A) ICTs, which are the set of resources, tools, equipment, computer programs, applications, networks and media that allow the compilation, processing, storage and transmission of information such as: voice, data, text, video and images.

B) Tac is the acronym for "learning and knowledge technologies", which are ICT used as didactic tools at the service of learning. ICT tools can be used through ICTs that allow us to move forward by making knowledge management possible, As an example the development of skills, or even the practice of any subject at any time through the use of these.

C) Teps are the implementation of technology and digitalization in the educational system. In other words, it is the evolutionary step of education towards the adaptation of the system to today's world. As a clear example we have the development of so many didactic programs in favor of education.

Below is a comparative graph of these different technologies that comprise the technological resources where a comparison between the 3 types of technologies can be observed.

Figure 2, Comparative table of types of technologies.



"There is a variety of these technological resources, some of them have a destination for data processing, as well as for the organization understood as simulators, in charge of reinforcing the capacities and competencies to generate, design and register" (Rojas, 2017, P.45).

Thompson and Strickland (2004) define information and communication technologies as: Those devices, tools, equipment and electronic components capable of

handling information that support the development and economic growth of any organization.

It can thus be understood that ICTs constitute a set of applications, systems, tools, techniques, and any methodology associated with the digitization of different resources.

It was Jean Piaget (1996) who starts from a theory where he affirms that active learning is promoted where the student is the main actor of the educational act, and I consider that ICTs are perhaps the most indicated to be participants in the construction of knowledge and that the student collaborates with his own learning.

The impact of the development of technological resources in education.

When we talk about the development that education has had with respect to technology it is impossible to deny that in the last 4 years this development has been exponential compared to previous times, with the need in schools to improve communication and work in various situations, has been innovating in different technological resources such as applications or websites, as an example we have "google classroom, Microsoft teams, google meet" among others.

With the latent need to improve the way we work as teachers, and improve learning, in some cases we can use new unconventional technological resources with a pedagogical or didactic purpose.

The teaching of English in Mexico has gained strength in recent years, it is conceived as a way for students to develop plurilingual and pluricultural competencies that allow them to successfully face the communicative challenges of the globalized social world (SEP, 2012).

But not only is the use of historical facts of social and popular interest the most feasible way or the only way that opens the doors to learning and the disposition of students, the use of technologies as mentioned above favors the development of different skills and also promotes an exponential growth in English second language skills.

Let us remember that Mexico has integrated into the Basic Education system, the most different instruments that contribute to facilitating the teaching-learning process for teachers and students: printed materials, chalk and blackboard, posters, flipcharts, slides, photos, etc., until reaching the radio, T.V., the computer, the Internet, email and what research and technology can contribute in the future.

Although it is true that, initially, ICTs were applied to open education, this was the starting point for the development of projects aimed at basic education, based on a methodology that faced the rapid changes of modernity.

The SEP, through the Latin American Institute of Educational Education -ILCE- develops educational projects with the noted characteristics.

In Red Escolar, its radius of action extends, mainly to Basic Education, in which a pedagogical model is applied that is based on the use of Information and Communication Technologies, connected to the Edusat Network for satellite transmission. , Internet, Email, etc. The pedagogical model created by Red Escolar not only has the advantages indicated in previous paragraphs with the use of ICT, but also because they are programs adaptable to the particular conditions of each federal entity.

These programs provide teachers and students with up-to-date and first-rate content that, immersed in a didactic-pedagogical approach, invites the discussion of ideas and experiences, which lead to significant learning. Among the projects that Red Escolar has made available to Basic Education schools we can mention Collaborative Projects, Online Courses and Workshops, Continuing Education, Educational Services, among others.

Regarding the Collaborative Projects, these are directed, particularly, to students in 5th and 6th grade of primary school and 1st, 2nd and 3rd grade of secondary school, with the contents corresponding to the curriculum of the Plans and Programs of the SEP.

One of the biggest challenges when it comes to teaching English from any perspective at the secondary level is to identify the real link that exists between the teaching of English and the use of resources that contain historical elements of Mexico to enhance student learning, and to understand how globalization within this integration and homogenization favors the understanding of this relationship.

This allows us to glimpse the importance of understanding students as part of that process in which the content arises from and for a given context, so special attention must be paid to the elements that the student possesses to develop optimally in a world that provides

challenges and information not only from their immediate environment but also from the world in general.

It allows to understand that the student should not only be trained to understand the world around him but also to learn from it. Globalization also implies facing the changes that the culture of each nation undergoes; both the material aspects of art, crafts, technology, as well as the immaterial values, attitudes, beliefs of culture, since they are essential elements of human life, constitute the framework within which communities function by giving a common meaning, whose processes can develop or be cut over time, in times of social change, a permanent re-evaluation of accepted practices is necessary (Cohen, 1988).

Thus, the need arises to understand societies from a global perspective, but also from their own genesis. As expressed by Anderson (1993), nationalism should be understood, not grouped with consciously adopted political ideologies, but with the great cultural systems that preceded it.

Therefore, providing meaning to what students are to learn through their acquisition of a second language suggests that they be placed in situations that involve both the use of English and an understanding of the cultural and historical issues involved.

When Anderson mentions imagined communities, he stresses the need to proceed with the treatment of information in a concise and precise manner, in order to avoid falling into distorted political systems that distance the meaning of facts from reality.

Elements that make up the Technological Resources.

According to Sanchez (2008), technological resources called Information and Communication Technologies suggest the use of social networks as tools on a topic of

interest; likewise, technological resources cover the need for the transformation of information management, being their particular use in programs and computers that facilitate the creation, modification, storage, protection and retrieval of information. According to Herrera (2015), technology is related in all aspects to knowledge, with major effects that transcend and achieve greater learning objectives, favoring students, as well as teachers, making teaching more dynamic and comprehensive.

Technological resources in education is, according to Hernández (2017), one of the processes that make up a positive educational environment, by building a didactic form and consolidating that this learning is meaningful, capable of achieving transformations that improve educational quality.

Likewise, students who are involved in the use of technological resources can better expand their knowledge, acquiring it in advance, clarifying doubts with the use of didactic videos.

However, this use of technologies has also been a great challenge for each student and each learner, due to its rapid advancement and the adaptation of each one with the use of technologies.

Therefore, the achievement of the objectives with the use of technological resources is, according to Tapia and León (2013), a task that depends a lot on the students, the way in

which they structure the work environment, where students do not feel frustrated, but feel familiarized and satisfied to receive more than expected.

The most common tangible technological resources can be used in schools as 31 management computerization tools and digital tools, however, according to Zambrano and Balladares (2017), their advancement is not at the same pace as that of students nor in all educational centers, but despite this, technological resources support in the transmission of information, making it a widely used tool.

The Learning and Knowledge Technologies with spaces for learning and knowledge generation, creating digital communities, articles of interest and others that add value in social networks, which are technological resources used as teaching tools in the service of learning.

It is through CT that technological resources tools are used to better manage knowledge management; therefore, their management goes beyond how to use them, allowing a greater exploration of technological tools for learning and knowledge.

The learning and knowledge technologies have resources such as video editing where teachers and students can edit and also create videos more easily, interactive videos that turn videos into interactive lessons that entertain students, audio with applications to share and

create, image to create different infographics that serve as visible language, classroom management such as rubrics, resource bank, lists, groups.

In that sense, the learning and knowledge technologies understand more of what using technological resources involves, but as Zambrano and Balladares (2017) indicate, these go beyond knowing how to use technological resources, with their technological tools that are within reach for the acquisition of knowledge and learning.

The Technologies of Empowerment and Participation, users make use of these spaces as citizen or community participation, depending on the common interest or solidarity causes. Empowerment in the participation of technologies serves for the social cohesion of certain groups by sharing interests, ideas, proposals, benefiting an entire economic, social and cultural system in which they develop.

So, when talking about PETs, it is because technologies play a necessary role in knowledge and learning. In this sense, PETs are technologies that are applied to encourage the participation of students, but also involve people on political and social issues, that is why empowerment technologies serve and include the participation of citizens in general, thus generating awareness and empowerment in the position of a person in front of society.

It is from there, that the power of information is granted in different points of view and give rise to a new world of empowerment and participation of those who receive the

information, existing between them an individual and collective knowledge, since learning will be proactive enhancing the skills of each individual through participation, promoting the increase of intelligence capabilities.

On the other hand, it is said that PETs break those paradigms of education, by promoting educational systems with designs and structures for education at different levels of learning. For that reason, according to Zambrano and Balladares (2017), CATs are not limited only in teaching, encompassing beyond for anyone who wishes to empower themselves with information.

Among the different resources that a virtual classroom should have to promote learning and improve educational activities are:

a) Forum: It is also known as that site of interaction between listeners and participants, on the discussion of a topic of interest mainly academic; also, it can be considered as the meeting generating discussion in the auditorium.

Therefore, it is considered as an academic technique of group communication, which can also be controlled by a moderator. Therefore, in order to participate in the forums, knowledge of technology is required, which is currently being activated by the students so that they can participate virtually through discussions in the forums.

b) Web pages: They are digital sites or documents of multimedia character, used by many people, in the search for information, advertising, sales, shopping, and education. In the educational field, the web pages are wide and are limited to learning, but they are also classified for different educational levels, but the most important thing is that these sites are available to all, with updated data.

c) Wikis: Wikis are used in the field of the Internet, which refers to web pages with editable content for many users. These pages are developed by the collaboration of the subjects that upload information, i.e. the Internet users, who modify, add or delete information.

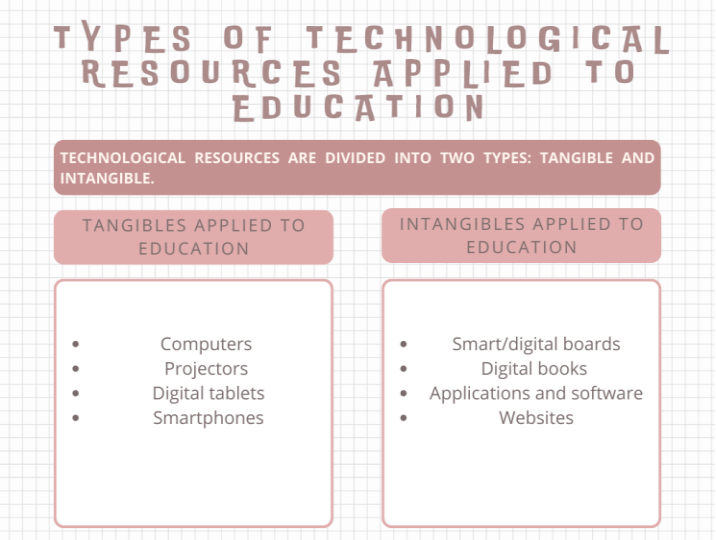
d) Chat: This word has the meaning of conversing, chatting. Therefore, there are sites where chats are integrated to facilitate dialogue and verbal, visual and auditory communication.

f) E-mail: It is a service that helps to send and receive information, messages to one or more recipients; as well as, receivers of the information, located anywhere in the world. E-mails are used by different programs that offer e-mails, which are created with basic user data and information.

In this sense, virtual classrooms should include all the necessary tools for academic development, as well as virtual libraries and social networks.

Technological resources as a tool for educational admiration.

Figure 3, Types of technological resources applied to education.



Information and communication technologies, known as ICT, are developed to manage information and send it from one place to another. This includes technological tools to store information from one place to another, which can be used for processing and reporting.

ICT contribute to education in the teaching-learning process, that is, the student will need several conditions to facilitate the acquisition of knowledge when performing their school activities, its use or employment is different in each student to obtain the knowledge they need.

In this sense, according to Salmerón (2017), ICT has aspects that will help students, these aspects are related to: flexibility where the student and the teacher will decide the material or electronic device to use, the versatility of digital tools to develop tasks or different

activities, interactivity of digital tools between students and teachers, connectivity to communicate and exchange information through social networks.

Also, they are considered within the pedagogical model found in most schools or educational centers, by the integration of advances that integrate the reinforcement of all types of intelligence, within a virtual reality where learning is inherent to motivational strategies, being used as a resource that move in time and space of research media, others speak of a programming and also robotics, since, students and teachers must be at the forefront of technological advances that involve programming with different updated tools.

Then currently, according to Barrio (2018), the teacher, as well as the students have access to all or some of the ICT, without any excuse that prevents broad and better knowledge acquisition.

Bustos & Coll (2010) mentioned the following: "ICTs produce sociable exchanges between teachers and students, through the establishment of a place or virtual space related to learning activities" (p. 175).

Academically, these resources are intended to be incorporated into the learning methodology so that the student achieves and surpasses his skills and abilities. To this, Beltrán and Bueno, (1995) tell us that: "In education, a resource is understood as any means, person, material, procedure, etc., whose purpose of support is incorporated in the learning process so that each student reaches the upper limit of his abilities and thus enhances his learning" (pp. 562-563).

Use of ICTs in secondary education.

Education has always been a fundamental need for society. In the training of professionals, the reality is changing by leaps and bounds thanks to the use of technology, creating in higher education students a constant process of training and updating.

The educational effectiveness of technological resources is linked to their interest in being considered as adequate instruments to materialize the change that the school needs to be able to know the demands and new challenges of today's society; also, the effects that fall on people, whose importance for users is learning and knowledge (Beltrán, Bueno, 1995, p. 564).

The use of technology in education has a positive impact on academic learning. On the one hand, it increases student motivation and interactivity. On the other hand, it fosters cooperation among students and encourages initiative and creativity.

There is a growing interest in the use of technology to enhance the training and education of adolescents in secondary education. Their motivation and attitudes toward learning depend in large part on their relationships with their classmates and the nature of their interactions with the environment. The use of technology can be beneficial to adolescents in this age group because of their enduring quest for peer group membership. Technology can provide adolescents with an avenue to connect socially with peers and common interests, which makes learning more fun and exciting.

It can also be useful for the development of personal skills through the use of learning games, as well as a platform to expose ideas through digital communication. In conclusion,

highlighting the importance of using technology to improve the motivation and enthusiasm of adolescents in secondary education is crucial for the development of their competences.

Teachers and ICT.

ICT, being technological resources and being in contact with the teacher and the student, both must be prepared for its correct use; however, it is the teacher who must be better prepared for it, in order to guide students so that they can use it corrently.

Teachers, faced with ICT's, must have knowledge of new technologies for teaching. They must be the facilitator or the one who selects the information. Likewise, he/she carries out a previous research on the subject he/she teaches, which is useful to guide the students. With these new technologies, it is achieved that when the teacher teaches, he motivates and manages to educate so that the student learns.

When teachers use ICT, learning experiences become viable, going beyond the usual development of activities in the classroom, with means that may favor students permanently and for a long time, with the generation of informal and formal training, asynchronous or synchronous, which are added in all activities for the student to connect and thus reinforce their learning, at an appropriate and updated pace (Ugaz, 2016).

Teachers who are articulated with the new technological trends, without detaching themselves from their culture and identity, will be the most capable of creating and producing knowledge, which can be focused towards an economy that is information and knowledge, points that have been mentioned throughout this research document.

That is why, in an institution, teachers and students should receive training on how to teach with the use of ICTs applied in education.

From a virtual society to reality, the teacher will be in contact at any time with the students. Since we all live connected to these tools. However, it is the teacher who must be the one to provide the solutions or educate on this issue, which is today's society and virtual information. Although our society is undergoing profound and prolonged changes, vary from this type allows everyone to be integrated.

Discord as a pedagogical technology resource for learning.

Discord is an application dedicated to improve communication in the field of video games, and we must take into account and pay attention precisely in its main objective which is "Promote and improve communication" this aspect is very important because as a proposal is something innovative and that really works.

On the other hand, in the educational aspect Discord is a multipurpose voice and chat application for groups, ideal for school activities. This popular communication tool was originally designed for gamers to keep in touch with their friends while playing games, but it quickly became a useful application for communicating in different fields, among which the educational one stands out. Discord allows the creation of servers, which can be used to manage the class, separate work groups, share files, organize meetings, among many other possibilities

It is this idea that motivates me to apply it in a classroom and in the subject of "English", because students break the traditional structure of learning anything. One of the most important issues to take into account is that it does not seek to change the principle and goal of learning but the process by which the student learns and that is where it can be lost

due to boredom, lack of motivation, social reasons such as grief or fear, this is where the proposal arises as an answer to these problems.

Discord has several options that facilitate communication such as chat forums where in an educational sense students can review grammar rules, solve exercises and receive rewards for their efforts. It also has voice chat forums where you can do things as simple as listening or something more complex by sharing screens and initiating interactive menus via video call.

As a teacher with group control needs Discord gives the moderator and creator of the server full control, the teacher in this case can divide the group into voice and text channels, as well as block them and suspend the chat of any channel, he can also assign any AI (Artificial intelligence) that can have various purposes such as roll call, play music, assign prizes, regulate participation in chat groups, divide participants (students) and more.

Meaningful learning

With the passage of time there have been many definitions that have allowed to explain in full what is meaningful learning, this is a process of collecting knowledge and learning through experience and practice.

Empirically, there is a belief that the only source of knowledge is through sensory experience. However, it is believed that we innately possess knowledge, as if we are born with that ability. But, with rationalism, this would be the source of what we learn and allows our mind to be always active.

Currently, the learning process is influenced by technologies or ICTs, where teacher and student have the ability to use the Internet and technological media to interact. Gómez &

Oyola (2012) tell us that, "Nowadays, learning is instructed through the construction of knowledge, where the pieces fit together like a puzzle. Therefore, so that ideas do not become disjointed, they must be given in a coherent way." (p. 19)

Meaningful learning arises when the student, as the constructor of his own knowledge, relates the concepts to be learned and gives them a meaning based on the conceptual structure he possesses Meaningful learning is a process by which meanings are constructed, being the central element of the teaching process, where technologies play a vital role in education Gómez & Oyola (2012).

This concept was created by David Ausubel, who defines it as a set of patterns where new information is related to that already acquired. In this sense, Ausubel, 1980, cited by Arias and Oblitas (2014) mentions: Meaningful learning relates new information in a non-arbitrary and non-literal way, through a process with important characteristics in the cognitive content of the person acquiring knowledge, called anchor ideas, which can be ideas, propositions, concepts (p.68).

The author states that the conditioning factor for generating meaningful learning is twofold: "The nature of the material itself and the nature of the learner's cognitive structure" (p.68).

The first corresponds to the fact that the material must be adequately elaborated, in a clear, didactic and pleasant way for learning; the other factor corresponds to the previous learning or cognitive structures of the learner. That is to say, it must be taught first to solve mathematical functions, and then to derive.

According to Ausubel's learning theory, it is that process that has current information related, in a non-literal and non-arbitrary way, to the fulfillment of important aspects in the student's cognitive structure.

According to Montilla and Arrieta (2015), this means that this learning occurs when new information arises and is anchored in the subsumers present in the cognitive structure. Then, it is clear that meaningful learning will require the use of materials and tools, which means a structure present in the student.

Finally, another factor is the student's interest in learning. The student must be motivated and interested in knowing what he/she is going to be taught, that is why the concatenation of previous learning is very important.

Significant learning

From the Greeks to the current day, there have been endless definitions that have permitted to make sense of it in its entirety; since it suggests a cycle, through the obtaining of information through experience and practice. Experimentally, there is a conviction that the main wellspring of information is through tactile experience. Notwithstanding, it is accepted that we naturally have information, as though we are brought into the world with that capacity. In any case, with logic, this would be the wellspring of what we realize and permits our psyche to be generally dynamic.

Ausubel (1980) mentions that significant learning relates new information in a non-arbitrary and non-literal way, through a process with important characteristics in the cognitive content of the person acquiring knowledge, called anchor ideas, which can be ideas, propositions, concepts (p.68).

The author affirms that the conditioning factor for generating meaningful learning has two factors: "The nature of the material itself and the nature of the learner's cognitive structure" (p.68).

Ausubel's Significant Learning.

In meaningful learning, according to Espinoza and Sanchez (2014), materials are used to learn and potentially design the meaning where the student must manifest his willingness to learn. This means that, with new information, the structure of specific knowledge is put into interaction.

Thus, for Ausubel, teaching was a process by which the student is helped to continue increasing and perfecting the knowledge he already has, instead of imposing on him a syllabus to be memorized. Education could not be a one-sided transmission of data.

The concept of meaningful learning appeared many years ago, exactly in 1963 by Ausubel, constituting it as part of the psychology of verbal learning, differentiated between teaching and learning, but it has also been interpreted in many different ways, but what is relevant here, according to Olaya and Ramirez (2015), is that those involved in education are related to the new changes of meaningful learning.

On the other hand, the learning activities are structured according to their exploration, activities for the introduction of new variables, synthesis and transfer activities, which during the intervention of the students are intended to learn and provide solutions to the problems.

Types of meaningful learning

Ausubel distinguishes three types of meaningful learning. These are: learning by representations, learning by concepts, learning of propositions.

a) The learning of representations is the most substantial and the others are subjected to it. Here meanings are attributed to certain arbitrary symbols with their respective concepts, objects, events; and this occurs when they are similar in meaning to each other.

b) Learning by concepts, recognized as events, objects, properties or circumstances, which possess qualities of certain common criteria, where they are denoted through signs or symbols.

c) Learning of propositions, is when a new concept is assimilated and integrated in its cognitive composition with previous knowledge.

Likewise, Sarmiento (2007) mentioned that: It requires grasping the meaning of ideas expressed in the form of propositions, which are obtained when the student forms sentences containing two or more concepts, this new concept is assimilated by integrating it into his cognitive structure with previous knowledge. (p. 43).

This is a dynamic process, characteristic of meaningful learning, characterized by presenting a dynamic organization with previously learned contents. Likewise, progressive

differentiation is one of the continuous processes for inclusion, which is part of the elaboration, modification and growth of concepts with the addition of other new concepts.

Frame of reference

The model proposed for this paper is constructivist learning theory, constructivism posits that "each learner structures his or her knowledge of the world through a unique pattern, connecting each new fact, experience, or understanding into a subjectively growing structure that leads the learner to establish rational and meaningful relationships with the world".

At the point when asked what constructivism is, following Vigotsky: "Fundamentally, one might say that it is the possibility that the understudy, both in the mental and social parts of conduct and in the emotional viewpoints, is certainly not a simple result of the climate nor a basic consequence of his inward demeanors, yet his very own development that is created step by step because of the collaboration between these two variables". (pp.22, 2005)

Piagetian constructivism contends that learning is an inward cycle, which happens through collaboration with the climate, subsequently the significance of giving the kid spaces and assets important to advance their interlearning; in the subject of perusing, this constructivist interaction doesn't change, knowing how to peruse includes the dynamic

scholarly support of the student, it implies understanding, having the option to acclimatize, oblige and adjust the ongoing data to another psychological outline.

This document is contrasted by different articles on research on the use of technological resources in different countries for learning in students from 13 to 15 years old. It is a reality that the use of technological resources in any educational area is poorly exploited, or at least in public schools, problems such as not having these resources is relegated when they have all kinds of technological resources and is poorly implemented, or is limited to the use of a projector and a computer.

Gilbert et al. (1992, p1), refer to the "set of tools, and channels for the processing of and access to information". For his part, Bartolomé (1989) points out that it refers to the latest technological developments and their applications technological developments and their applications.

Along the same lines, in the dictionary Santillana's dictionary of Educational Technology (1991), defines them as the "latest developments in educational technology" (pp 76). "Castells (1986) indicate that they comprise a series of applications of scientific discovery whose core whose focal core consists of an increasingly city chairman capacity for information processing of information processing.

García-Valcárcel (1998) points out that "child tasks are those media that have arisen as a result of the development of microelectronics, mainly the development of microelectronics, fundamentally video, computer and telecommunication systems" (pp. 123).

video, computer and telecommunications systems" in this last concept a limited conception of the term is observed, because the Web can be perceived as an environment in which codes, meanings, feelings and emotions are exchanged and Internet users build a new culture, the computerized culture, in the educational field this is called a third environment.

The way English is taught in Mexico generally depends on the educational institution where it is taught. In most cases, primary and secondary schools have a basic English method consisting of at least one cycle. From there, students have the possibility of advancing to a higher level of study according to their ability and motivation. In addition, students usually learn in homogeneous age groups, which means that the level of vocabulary and grammar taught during each class may vary from one group to another.

The focus of English language instruction in Mexico tends to be primarily on the development of reading comprehension and conversation. The overall goal is for students to be able to communicate fluently at a basic level when reading, listening, speaking and writing in English. Students also learn to use the acquired skills in everyday situations, such as greeting someone, asking for something, asking the time or providing instructions.

As for technological resources, they are used as additional tools to reinforce the content of the class. For example, videos, interactive readings, games and online activities can be used as a way to reinforce concepts. This helps students develop language skills in fun and motivating ways.

Methodology

Research question

"What are the characteristics that a proposal for the use of technological tools for teaching English should have?"

Supposed

Through research we can come up with a proposal using technological resources that can be used for teaching.

With the appropriate use of technological resources, students will improve their English language learning

Sample

The sample was a group of 10 first year middle school students, in the Escuela Secundaria Federal 11 "Licenciado Benito Juárez", the sample was not for probabilistic purposes since the intention was not this, specifically there were 5 males and 5 females, it should be noted that the selection was homogeneous.

The inclusion criteria were based on the following characteristics:

1- The student has his or her own electronic devices, it can be a cell phone, computer or tablet.

2- The grades of these students have been low during the first trimester of middle school.

3- No problems with taking pictures or capturing their own work.

Justification for the use of instruments

The instruments already mentioned were diagnostic tests, qualitative interviews, and annotations during the use of technological resources, in this case "Discord".

A diagnostic test is used to assess the level of knowledge, skills and competencies of students at the beginning of a course, program or educational process. Its main purpose is to identify students' strengths and weaknesses in a given subject or area of study.

Qualitative interviews are used in social research and qualitative studies to gather in-depth information about people's experiences, perspectives, beliefs and behaviors. Unlike quantitative approaches, qualitative interviews focus on understanding the meaning and interpretation that people give to their reality and allow exploring subjective and contextual aspects.

Finally there is the use of "Discord" which can be used for study or practice groups: You can join Discord groups dedicated to learning English. These groups usually offer chat and voice channels where members can interact and practice the language. You can participate in conversations, ask questions, receive feedback from native speakers and improve your oral fluency.

Or on the other hand as a resource and learning material: On Discord, you can find servers or channels dedicated to sharing resources and materials for learning English. They can provide links to websites, videos, documents and interactive activities to help you improve your vocabulary, grammar, listening comprehension, among other aspects of the language.

Sergio Tobon and the design of the proposal.

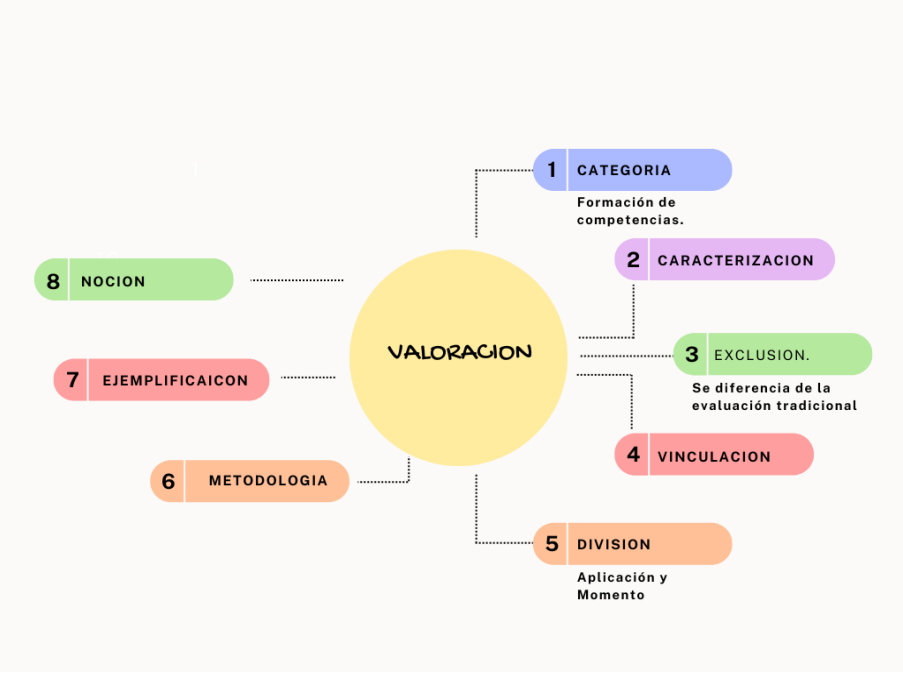
During this proposal, Sergio Tobon's conceptual cartography was used to design the proposal, observe and analyze each of the axes in order to have a complete construct.

As mentioned by Tobón, S. "Competencies seek that human beings develop their full potential to act with suitability and ethics in the face of problems, and if this is so, it would be expected to have an impact on social problems such as poverty and violence" (pp. 86) . In this case the project aims to improve the English language skills of middle school students.

Sergio Tobón explains Conceptual Cartography as a strategy that allows the construction and communication of concepts based on complex thinking, using verbal, non-verbal and spatial aspects.

Taking Tobon as a reference, the work process will be guided by his cartography.

Figure 4, Cartography by Sergio Tobon.



Sergio Tobón explains Conceptual Cartography as a strategy that allows the construction and communication of concepts based on complex thinking, using verbal, non-verbal and spatial aspects.

Notional axis: Refers to the understanding and definition of fundamental concepts related to a subject or area of study. This axis seeks to establish the conceptual bases necessary to approach a field of knowledge in a precise and clear manner.

Categorical axis: It deals with the classification and grouping of elements or phenomena related to an area of study. This axis seeks to identify and establish the categories or classes that allow organizing and structuring knowledge in a systematic way.

Characterization axis: It focuses on the description and attributes of the elements or phenomena studied. This axis seeks to identify and analyze the essential and distinctive characteristics of the elements or phenomena, which contributes to their deeper understanding.

Exclusion axis: It deals with the delimitation of the elements or phenomena that are not part of the field of study. This axis seeks to establish clear limits and define which elements or phenomena are excluded or are not relevant to the topic in question.

Linkage axis: This refers to the identification of relationships and connections between the elements or phenomena studied. This axis seeks to establish the interrelationships and links that exist between the different concepts and aspects of the topic of study.

Division axis: It deals with the partition or decomposition of the elements or phenomena into smaller parts or subcategories. This axis seeks to analyze and decompose the elements or phenomena into more specific components for better study and understanding.

Methodological axis: It focuses on the methods and approaches used to investigate and study the topic or phenomenon in question. This axis seeks to identify and apply the most appropriate methodologies to collect data, analyze information and obtain significant results.

Exemplification axis: It deals with the illustration and exemplification of the concepts and phenomena studied. This axis seeks to provide concrete examples and real situations that help to understand and apply in a practical way the theoretical concepts.

These axes are part of Sergio Tobón's cartographic methodology and offer a structure for the exploration, analysis and representation of knowledge in different areas of study.

Action research and impact assessment.

Action research, which is a research approach that combines reflection and action to address problems or challenges in a specific context, was used to evaluate the impact of the proposal. Although there are different models and variations, the following steps can generally be identified in the action research process:

Problem identification: At this stage, the problem or challenge to be addressed is clearly identified and defined. It is important to have a clear understanding of the current situation and the areas that require improvement or change.

Planning: In this phase, a detailed plan is developed to carry out the action research. This involves setting clear objectives, identifying the specific actions to be taken, determining the resources needed, and establishing a timeline for implementation.

Data collection: In this stage, relevant data are collected to better understand the problem and make informed decisions. This may involve collecting quantitative (e.g., surveys, records) and qualitative (e.g., interviews, participant observation) data.

Data analysis: Once data are collected, they are analyzed and interpreted to extract meaningful information. This involves examining patterns, identifying the underlying causes of the problem, and looking for possible solutions or approaches to address it.

Action: In this stage, planned actions are implemented in response to the identified problem. It may involve implementing changes, introducing new practices or adopting specific interventions to address the problem.

Evaluation: After the actions have been carried out, their effectiveness is evaluated and it is examined whether the established objectives were achieved. Different evaluation methods can be used, such as post-intervention data collection, comparison of results before and after the action, or feedback from the participants involved.

CHAPTER II

This chapter is described and divided into "axes" according to Sergio Tobon's cartography that allows the optimal organization for the description of the application project (thesis) and its stages.

The selection of Tobon's cartography was due to the development and organization that it presents, since it is the ideal conceptual cartography to organize the work of the application project, together with the complementation that it has with the action research, it is perfect.

Notional Axis

Feedback: Etymologies

A) **Technology:** comes from the Greek τέχνη (pronounced "téchnē") and means art, craft or skill. Therefore, technology is not a thing but a process, an ability to transform or combine something already existing to build something new or give it another function.

B) **Recurso:** From Latin recursus, and this perfect participle of recurrere ("to return"), from re ("again") and currere ("to run"), from Proto-Indo-European *ker-. Compare recurrir.

C) **Communication:** comes from the Latin communicatio, communicatiōnis, which, in turn, derives from the Latin verb communicare, which means to share, to exchange something, to put in common**.**

D) **Education:** comes from the Latin noun educatio, -ōnis, in turn associated with the verbs ēdūcere, which has the senses of educate, bring forth, raise or nurture, and ēdūcāre, which means to lead, carry or guide.

E) **Apprenticeship:** it comes from the word "apprentice", which in turn comes from the Low Latin "aprehendivus", and this from "apprĕhendĕre", which means to learn, and where the prefix "ad" connotes proximity and direction, and where the term "prĕhendĕre" means "to perceive".

F) **Behaviorism:** Definition of behaviorism in the Spanish dictionary is a methodological orientation that studies behavior on the relations of stimulus and response and on the basis of behavior and objective reactions, without taking into account consciousness, which is considered an epiphenomenon.

G) **Technological Resource:** Means that uses technology to fulfill its purpose. Technological resources may be tangible (such as a computer or printer) or intangible (virtual system or application).

H) **Investigation:** The word "investigate" leads us to the Latin investigāre which alludes to the action of searching, inquiring, inquiring and which in turn refers us to the word vestigium, which means "in search of a trace", "in search of a clue".

I) **Methodology:** The word methodology is formed from the Greek roots μέθοδος (méthodos), which we can translate as 'method', and the suffix -logía, which derives from the voice λόγος (lógos), meaning 'science, study, treatise'.

J) **Education:** The word education comes from the Latin educere which means to lead, guide, orient, although it is also possible to relate it to the word exducere: to bring out, reaching the etymological definition of "to lead out".

Special concepts: Discord

Discord: Discord is a VolP instant messaging and voice chat service. It works through servers and is separated into text and voice channels. Discord's main objective is to improve communication between users.

Categorical axis

By means of the categorical axis, concepts are grouped into related categories, which allows visualizing and understanding the connections and relationships between them. This contributes to a clearer and more organized representation of knowledge, facilitating its analysis and study. In the present axis, some concepts were seen as: English education in mexico, basic, secondary and high school education in mexico, the Structure of the National

Education System, Secondary Education in Mexico, Types of Information and Communication Technologies among others,

It is important to emphasize that the categories in the categorical axis of Tobon's conceptual mapping are not predetermined, but are constructed according to the topic of study and the relationships established between the concepts. Therefore, the categorical axis is flexible and can be adapted to different contexts and knowledge representation needs.

English education in Mexico.

To speak of globalization in order to understand why the present didactic proposal allows us to identify elements that favor its development, since the teaching of English arises from the need to position Mexico within the international standards for the teaching of a foreign language (SEP, 2006).

Globalization seen from the perspective of Huntington and Bello's perspective represents homogenization, given that for the latter it is a process of expansion for the latter it is a process of expansion through which the tendency which tends to homogenize the great transformations of society and everyday life (2003) of society and everyday life (2003), while for Hallak it is the result of the Hallak it is the result of the integration of the economic and financial sectors on a global scale (in and financial sectors on a global scale (in Cornejo, 2012).

However, for Ianni (in Bello, 2003), globalization is based on explanatory is based on explanatory patterns that seek to study and describe how the world is being and describe how the world is being designed, which shapes the movements of global society, combining movements of global society, combining reflection and imagination and imagination.

This makes it possible to point out that in spite of the terms used to terms that are used to determine the epistemic gaps that exist epistemic gaps that exist between the globalized and the globalized. 18 construction of new knowledge for the understanding of the world the world that surrounds students, it is necessary to manage processes that processes that lead to the achievement of meaningful learning for their full development learning for their full development.

Basic, middle and higher education in Mexico.

The General Education Law establishes three types of education: basic, middle school and higher education. Basic education consists of three levels: preschool, primary and secondary. In its three grades, preschool education serves children from three to five years of age.

The National Education System is composed of Basic, Middle and Higher Education, in the school, non-school and mixed modalities. Basic education is comprised of preschool, elementary and secondary levels.

Middle-higher education includes the middle school level, as well as other levels equivalent to middle school, and professional education that does not require a middle school diploma or its equivalents.

The superior type is that which is offered after the baccalaureate or its equivalents. It is composed of bachelors, specialty, masters and doctoral degrees, as well as terminal options prior to the completion of the bachelor's degree, such as the Higher University Technician studies. It includes normal education at all levels and in all specialties.

Structure of the National Education System

Basic education consists of three levels: preschool, primary and secondary. In its three grades, preschool education serves children from three to five years of age. 1 The primary level has six grades. According to official data, it incorporates children from six to 12 years of age. Completion of this level is accredited by means of an official certificate, which is a prerequisite for entry into secondary school. Secondary education is provided in three grades. It covers young people from 13 to 15 years of age. Its completion is also accredited by means of an official certificate, which is a prerequisite for admission to higher secondary education. According to the third article of the Constitution and the General Education Law, the three levels of education are compulsory, and therefore, coverage should be universal.

Upper secondary education comprises the baccalaureate level and technical vocational education. The baccalaureate is generally offered in three grades, although there are two-year and four-year study programs. The baccalaureate certificate is required for admission to higher education. In technical vocational education, there are two- to five-year programs, although most are three-year programs. It is oriented towards training for technical work and almost all programs are of a terminal nature.2 Article three of the Constitution establishes that this type of education is mandatory as of February 9, 2012 and proposes "to achieve total coverage in its various modalities in the country no later than the 2021 to 2022 school year" (pp. 60).

Higher education consists of three levels: higher technical, undergraduate and graduate. Higher technical education is oriented to the training of professionals qualified to work in a specific area. The programs last two years, are terminal in nature and do not reach the bachelor's degree level. It trains professionals in various areas of knowledge with study

programs of four years or more. It is offered in universities, technological and teacher training institutions and is terminal in nature. Baccalaureate studies are mandatory to enter either of these two levels.

Secondary education in Mexico

Different analysts agree that secondary education seems to be the most difficult level of education to transform in different parts of the world (Braslavsky, 2001).

This is partly due to the fact that it has not been able to overcome the conditions that gave rise to it, i.e., to serve the elites of the middle and upper social sectors. Now, as the universalization of primary education has been achieved, it demands young people from all social sectors and, consequently, the school population is more heterogeneous and more diverse school population is more heterogeneous and diverse. On the other hand, as has been explained in the article, secondary education continues to sustain its curricular proposal. Secondary education continues to uphold the curricular and pedagogical proposal that gave rise to it in the 19th century.

In the case of Mexico, we cannot afford the luxury of only ensuring service coverage in secondary education. Secondary education. The experience of emphasizing education policy in the quantitative expansion of primary education during the quantitative expansion of primary education during the second half of the twentieth century and not addressing quality and equity with the same quality and equity, we are now paying a very high cost. We must look for ways to ways to grow with quality and equity. Finally, the right to education implies, first and foremost, the right of students to learn right of students to learn issues that are relevant to their present and future lives.

Types of Information and Communication Technologies.

The appropriation of ICT in the educational process is and will be of great importance for the education that is provided to today's society, and especially, for the society of the future, since technology and the evolution that our society presents are to require that all people, from an early age, interact and learn about the use of technology and the tools that it presents to us.

ICTs are increasingly friendly, accessible, adaptable tools that schools assume and act on performance personal and organizational. These schools that incorporate the computer with the purpose of making pedagogical changes in traditional teaching towards a more constructive learning. There the computer gives the information, promotes the development of skills and abilities so that the student searches for information, discriminates, builds, simulates and tests hypotheses (Papert in Darías, 2001).

Regarding this topic, Kustcher and St.Pierre (2001 p.31), consider that the ICTs that have an impact on education are the following:

Computers and peripherals that handle, use, store digital information (speed, power, sound, a variety of colors, video, CD-ROM drive, calculator, digital camera, color printer, scanner).

Digital information (application programs and programs that display or manage information: didactic application program, WEB page, database, word processing application program, electronic spreadsheet).

Digital communication (electronic messaging, "chat", electronic forums, electronic news, telecopier, teleconference, audio and videoconference).

The range of possibilities affect all spheres of human activity, at this time it is not understood how someone can be cut off by telephone, or why many do not have emails to communicate. The information provided through electronic banking has proliferated, buying a house, a car or even doing a market can be done through the Internet.

There are a number of abbreviations used to describe the modalities in which computers are used: Computer-Based Training (CBT), Computer-Assisted Learning (CAL), and Computer-Assisted Instruction (CAI).

In which there are products that have a linear structure and sequence, based on a behavioral approach, and products that have a sequence and a series of relationships between the blocks of information that allow the user to be offered greater flexibility and interactivity.

Tics, tacs and teps in the teaching and learning process.

More than twenty (20) years ago "new technologies" had the important role of being considered as a primary source for communication, Kay (quoted by Vizcarro and León) in 1984 defined the computer as "an effective medium for dynamically adopting any characteristic of another medium, even non-existent ones, it is the first meta-medium that has a capacity for representation and expression...unthinkable" (p.55). At present there are many concepts related to the characteristics and potential of new technologies as instructional media.

ICTs, TACs and TEPs are increasingly friendly, accessible, adaptable tools that schools assume and act on personal and organizational performance. These schools incorporate the computer with the purpose of making pedagogical changes in traditional teaching towards a more constructive learning. There the computer provides information,

promotes the development of skills and abilities so that the learner searches for information, discriminates, constructs, simulates and tests hypotheses (Papert in Darías, 2001). In addition, it also allows to increase the number of the population served. Thus extending the possibility of education reaching more households and potentially improving their quality of life.

The advantages and disadvantages of computers, the convenience or the unavoidable use of this device as a tool in the production, circulation and consumption of knowledge are discussed.

Advantages of the use of Tics, Tacs and Teps in the educational system.

Three major information and communication systems make up the ICT, Tac and Tep are spaces in the global educational environment: video, computer science and telecommunications that together with a single purpose are valuable tools for the materialization of the knowledge that the learner will acquire.

"The rapid progress of information and communication technologies is changing the way knowledge is produced, acquired and transmitted" (UNESCO, 1998). Education must face the challenges posed by the new opportunities opened up by technologies that improve the way of producing, organizing, disseminating, controlling knowledge and accessing knowledge.

Equitable access to these technologies must be guaranteed at all levels of education systems. In the field of education, these technologies augur the gradual disappearance of space and time constraints in teaching and the adoption of a more student-centered learning model.

At the same time, they favor the commercialization and globalization of Higher Education, as well as a new management model for its organization (Bricall, 2000). Technological learning environments are effective, comfortable and motivating, and can be worrisome for those who have not ventured into them as users and/or who do not handle them properly.

In these environments, learning is active, responsible, constructive, intentional, complex, contextual, participatory, interactive and reflective (Kustcher and St. Pierre, 2001), which allows those who interact with them the possibility of taking advantage of them, but they can also have disadvantages due to misuse or decontextualization.

Second language (L2) writing ability can be categorized into several key aspects that reflect an individual's proficiency and competence in this domain. Below are the key categories for assessing and describing L2 writing ability:

Grammatical and Linguistic Accuracy: This category focuses on the accuracy and mastery of the grammatical and linguistic rules of the second language. It includes aspects such as correct verb conjugation, proper use of verb tenses, nominal and verbal agreement, and correct application of syntax.

Textual coherence and cohesion: This category refers to the writer's ability to maintain a logical structure and adequate thematic progression in the written text. It includes aspects such as the organization of ideas, the use of connectors and discourse markers, and lexical cohesion to achieve a smooth transition between sentences and paragraphs.

Vocabulary and lexical richness: This category relates to the appropriate and varied use of vocabulary in L2. It includes aspects such as the choice of precise words, knowledge

of synonyms and antonyms, the ability to use idiomatic and colloquial expressions appropriately, and the expansion of the lexical repertoire.

Creativity and originality: This category evaluates the writer's ability to express ideas in a creative and original way in L2. It includes aspects such as the use of stylistic resources, the development of metaphors or comparisons, the introduction of novel ideas, and the ability to generate texts with their own voice.

Text organization and structure: This category refers to the overall organization of the written text in L2. It includes aspects such as the appropriate introduction of the topic, the development of arguments or main ideas, the effective conclusion and the use of well-structured paragraphs.

Characterization axis.

The characteristics that highlight the "Discord" proposal project as one of the most innovative didactic resources when talking about technological tools are several, characteristics shared between didactic resources dedicated to improving education through technology are:

- Share screen
- Assign tasks
- Create and Manage classes
- Add Google forms

The teaching of English in Mexico has gained strength during the last few years, since its implementation in the 1993 Curriculum (as a curricular subject for middle school students)

through its strengthening within the 2011 Curriculum where it is not only considered as a second language, but also, its obligatory nature from the third year of preschool to the last grade of middle school. And finally, it is included in the National Strategy for Educational Improvement and the New Educational Model in 2018 and 2019, respectively.

When talking in Mexico and education with respect to the subject of English, technological tools are never taken as a reference, the most common materials are commonly used: flashcards, printed texts, podcasts, audios, songs, speakers, among others.

It is worth mentioning that any material with a pedagogical purpose is good, but there is always room for improvement to facilitate student learning.

With my discord proposal we can attack each of the problems that can bring the use of physical didactic material or even improve it.

One of the first advantages that are announced is the "screen sharing" this function serves us as teachers not only as a digital whiteboard but also to share any type of editable content, and it is necessary to highlight this function, because as English teachers we need to explain too many topics, and as expected students often have mistakes when learning, so the advantage with the function of "interactive screen sharing" is that students and we as teachers have a control and an accompaniment that favors our work as facilitators of knowledge.

Together with the option "screen sharing in real time" discord offers us as teachers the use and collaborative work of any document without any kind of "delay", this favors the small fight against boredom that students have when learning a second language, in this case English.

In the application "discord" we favor the teachers with regard to the assignment of tasks a very big support, compared to application as "classroom" of google or Microsoft tasks, discord offers us the possibility of using specific artifical intelligence that as teachers helps us and removes us weight of work as assigning tasks, generally for a middle school teacher many students are assigned to him and commonly he is suffocated of work.

This becomes tiring over time, so with discord when a teacher decides to assign homework unlike any other application that serves as a pedagogical support tool, discord gives teachers direct support with an artificial intelligence that is only assigned a task such as "reviewing student homework, grading according to the correct grade with respect to grammar, recording whether the homework was submitted or not, as well as generating records of roll call/attendance of students.

As I mentioned before, every digital resource that is used by a teacher has the purpose of facilitating a task, and a clear example of the performance of this is the "discord" application as a support tool for teaching and learning a new language in secondary schools.

When a teacher uses google classroom is somewhat limited, since google classroom although it is a conventional digital tool for teacher support, discord gives us the best option to create and manage classes digitally.

Any teacher can see "google classroom" as the best option when creating and managing a virtual classroom as it provides many advantages and sub tools, however a common teacher needs 2 to 3 technological resources to give a complete class, for example materials and tools.

However, with my proposal for the use of "discord", only one application is needed, since it gives us as teachers the opportunity to create multiple rooms and channels where we can divide the number of groups that we decide, along with this we also have the possibility of standard and advanced configuration of our channels and voice chats, which can be translated as an absolute dominion over our English classes.

One of the biggest challenges that we can find as teachers is that students remain active throughout the class, of course we must consider that there are students who may not be interested in working through technological resources, however most of them will be attracted by the change from a traditional teaching or practice to a more enjoyable environment with technology.

Returning to the previous point, when students encounter an English class they become desperate or bored because at times they do not understand the class, in primary education there are the famous "active pauses" that in secondary education are generally lost or are not seen with so much importance.

With my proposal for the use of discord, teachers have a mobile option where teachers can program some quick games in English that favor the learning and practice of the language of the students.

When we talk about the technological tools that the teacher can use to teach an English class we can take into account a great variety, of course also taking into account the physical technological resources such as the computer system, a monitor, a projector and even an electronic blackboard, however in public middle schools are usually found only the computer system, a projector and the wifi network, this can generate some difficulties or

limits the teacher to use various digital support tools, such as programs and applications to teach their classes.

However, with my proposal you only need one program (Discord) since it has all the necessary tools to give a complete class and cover the educational needs of the students.

The knowledge society is based on the transformation of the social, cultural, economic, political and institutional dimensions, as well as on a more developed and plural perspective (UNESCO, 2003).

It can be seen then that the fact that the teaching of English in Mexico is now called the teaching of a second language corresponds to a great extent to this process of globalization since it is imperative to be participants in the transformation based on the notion that Mexico is not an isolated country since it belongs to different world organizations, which intensifies the need to enhance the learning of students so that they can effectively integrate into an increasingly competitive society.

This implementation is not only a strategy that seeks to overcome this challenge faced by English teachers today, but rather it aims to become a model for the teaching of a foreign language, which favors the students' learning of English, the understanding of the world around them, the understanding of the historical events of the country in which they live, as well as the apprehension of a new culture.

Dealing with the immersion of foreign cultural elements that modify the way in which students develop and interact with each other; for example, students identify Anglo-Saxon words such as facebook, whatsapp, wal-mart, hot-dog and google to mention a few, but their

understanding of the culture in which they live and the culture they acquire when learning a foreign language is almost nonexistent.

It is understood that as part of the economic, technological, political and cultural development, the learning of a foreign language is essential for the integration of human beings within it; therefore, the social problem that we seek to address is to understand that the teaching of English in educational institutions can encourage and promote the understanding of the environment in which we live and likewise promote the expected learning of the same.

Promoting the teaching of English through historical elements of Mexico raises the possibility of identifying ways of teaching that can be applied in different contexts, not only within public education, but also transcending to different areas, since the aim is to achieve the learning of a second language in such a way that the strategies described here promote the learning of English in any classroom where they are applied.

Division Axis.

The division of a concept into sub-concepts helps to show the hierarchical relationships and the internal structure of knowledge. In addition, it allows organizing information more clearly and facilitates the identification of interconnections between the different elements.

The following subdivides the categories of the application proposal as well as its different categories within the investigation of the different didactic use of innovative technological resources as tools for teaching English in secondary education.

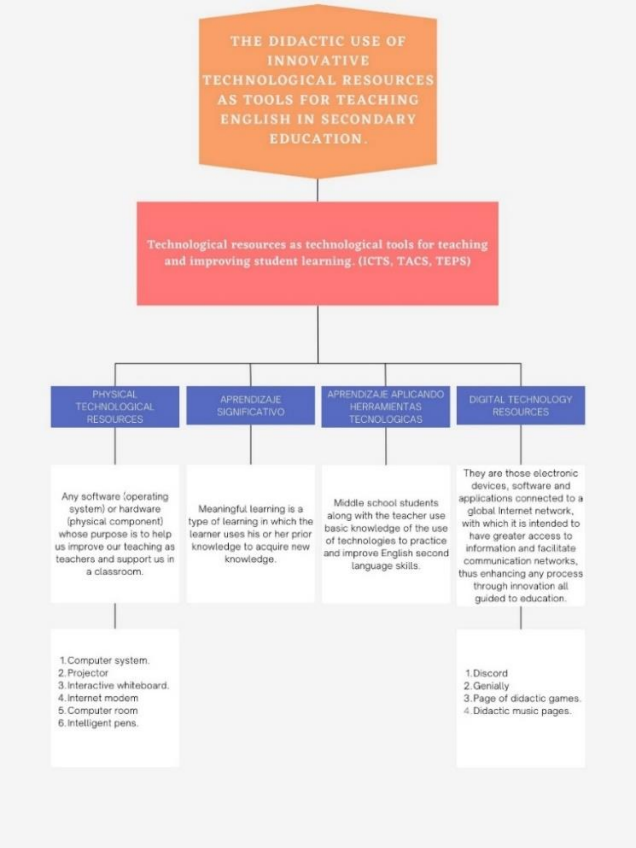


Figure 6 Categorical division of the applied proposal.

Linkage Axis.

The Linking axis seeks to connect the concepts with real situations, concrete examples, problems or phenomena of everyday life, as well as with other knowledge and disciplines. This allows the concept maps not to be merely abstract, but to be anchored in reality and facilitate the understanding and application of the concepts.

In Mexico, ICTs have gained a relevant place in basic education, which facilitates the work of teachers and students in the classroom in the teaching-learning process, the results of which can also be seen in the social environment in which they develop.

In order for education to have the results expected from ICTs, it is not only necessary to start with a methodology that involves the formulation of a methodology that implies the formulation of purposes derived from educational plans and programs, but also to take into and programs, but it is also necessary to take into account the type of strategies to be followed, as well as the didactic materials to be used. the didactic materials to be used and, finally, to evaluate the different aspects that intervene in the process in order to verify the different aspects involved in the process to verify the effectiveness and efficiency of the use of the media in education, thus and thus, to have the elements that allow correcting and/or improving the general guidelines to develop educational to develop educational projects to obtain better results.

Let us remember that Mexico has integrated into the Basic Education system, the most different instruments that contribute to facilitate the teaching and learning process for teachers and students are: printed materials, chalk and blackboard, posters, flip charts, slides, photos, etc., up to the radio, TV, computer, Internet, e-mail and what research and technology can contribute in the future. Research and technology may bring in the future.

Although it is true that, initially, ICTs were applied to open education, this was the starting point for the development of projects aimed at basic education, based on a methodology that would face the rapid changes of modernity.

This methodology must have the necessary elements that lead the student, obviously under the guidance of the teacher, to the simplification of activities and these, to the understanding, interpretation and analysis of knowledge, which in turn will induce interaction among students, which contributes to the construction of their own knowledge and consequently, to generate meaningful learning.

Once the educational purpose(s) of the program or project have been defined, the necessary strategies will be established to strategies capable of making it a reality, that is, to put into practice the tactics to be followed with a defined direction and order and orderly tactics to be followed.

Within this scope -the strategies- the appropriate materials should be selected to the appropriate materials will have to be selected to transmit the contents and activities that will to achieve the previously proposed purpose.

In this context, that of the selection of materials, the information and communication media are included in Educational Technology and communication media are included in Educational Technology.

The context of modernity of the media, in which children, adolescents and young people are somehow immersed, allows them to develop an interest in them, which in turn facilitates their management, a situation that teachers can take advantage of by focusing it on the educational task, who in turn, facilitate the management of the same, a situation that can

be used by teachers to focus on the educational task, who, in turn, can use it as a tool for the development of their own knowledge.

To the educational task, who in turn, through online courses or other options, will obtain the corresponding update for the didactic the teachers can take advantage of this situation by focusing it on the educational task, who in turn, through online courses or other options, will obtain the corresponding update for the didactic management of Educational Technology.

Among the aspects to be considered in the implementation of an educational project of this or any other nature, it is a priority to establish the purpose(s) to be achieved. or any other, it is a priority to establish the purpose or purposes to be achieved, which must be attached to the educational plans and programs of the SEP must be in line with the SEP's education plans and programs, in other words, clearly and precisely define the capacity, ability or knowledge that the student should acquire after observing, listening attentively and after observing, listening attentively and developing the activities suggested in the program, and all that in the program, and everything that facilitates its attainment and affirmation, as well as its application in daily life, naturally under daily life, naturally under the guidance of the teacher.

With regard to the specific characteristics of the methodology of the media applied to education, the following can be considered applied to education, the following can be considered:

- It provides current and relevant information.

- It promotes participatory work, research and analysis.

- It combines the different elements of informatics: audio, video, printed material, etc., to facilitate the educational process facilitate the educational process.

- Provides elements that develop students' creative abilities and skills students.

Among the methodologies that use ICT, we can mention the following ones in which the students and the teacher participate directly in the classroom, those that take place at a distance, in which the teacher and the students distance learning, in which the person concerned receives the learning materials and handles them according to his or her needs and according to his or her particular needs and time, and blended learning, which combines the two previous modalities.

SEP, through the Latin American Institute of Educational Education -ILCE- develops educational projects with the aforementioned characteristics.

In Red Escolar, its scope of action extends mainly to Basic Education, in which a pedagogical model is applied based on the use of Information and Communication Technologies, connected to the Edusat Network for satellite transmission, Internet, Electronic Mail, etc.

The pedagogical model created by Red Escolar not only has the advantages mentioned in previous paragraphs with the use of ICT, but also because the programs are adaptable to the particular conditions of each state.

These programs provide teachers and students with updated and first class contents that, immersed in a didactic-pedagogical approach, invite the discussion of ideas and experiences, which lead to significant learning.

Among the projects that Red Escolar has made available to elementary schools are the Collaborative Projects, Online Courses and Workshops, Continuing Education, Educational Services, among others.

As for the Collaborative Projects, these are aimed, particularly, at students in 5th and 6th grade of elementary school and 1st, 2nd and 3rd grade of secondary school, with contents corresponding to the curricula of the SEP's Plans and Programs.

The Online Courses and Workshops are aimed at the training and updating of teachers, obviously, through the technologies we have referred to.

The above-mentioned courses and workshops not only fulfill their primary purposes: -to train and update Basic Education teachers-, but also to train and update the teaching staff and update the teaching staff of Basic Education, but also have a value in terms of promotion and, therefore, in terms of the and thus, the participating teachers can raise their rank in the hierarchy rank.

Methodological axis.

This section will develop the entire methodological process that took place during the creation, implementation and evaluation of the proposal, this section will be divided into phases where the process that took place will be explained step by step.

Phase 1 Project Presentation.

The use of different technological resources as support tools for learning a second language "English". For the application of this project different technological resources were used to support the learning of English, however, emphasis was made on a program,

"Discord", which allows us to have different functions to improve learning and meet the educational needs of students.

There are several facilitators for the proposal that should be taken into account when thinking about applying several of the technological resources or in this case the use of the technological resource "Discord", these points are:

A) Does the school have a computer lab?

B) Does the school allow the use of the computer room?

C) Does the school have internet (Wifi)?

D) Is the internet stable?

E) How much time is there for the application of the project?

F) Is it possible to leave homework for the technological resource?

G) Is it easy for me to use the application?

These questions are an example that allows us to know and investigate whether or not the application of the project is feasible and viable, (2010) state that before posing the research question, a research idea should arise, which should help to solve problems and provide knowledge.

According to Manterola and Otzen (2013) the research idea can originate from multiple sources, such as, for example, clinical care, reading specialized literature, discussions with colleagues, attending congresses, experience of the researcher and so on.

Once the previous research idea has been refined, an adequate observation of the phenomenon of interest has been made and the theory has been deepened, the research question emerges as a logical product of the previously conducted process.

As well as the research questions that allow us to know if the proposed project is applicable or not. However, we also have to take into account the data collection material, which allows us to collect the necessary data that will give us valuable information, for example, the interests of the project.

The tools highlighted in this project are three:

a) Interviews

b) Surveys

c) Observation diary

Type of research.

This project has a qualitative approach, the authors Blasco and Perez (2007:25), point out that qualitative research studies reality in its natural context and how it happens, drawing out and interpreting phenomena according to the people involved.

It uses a variety of instruments to collect information such as interviews, images, observations, life histories, in which routines and problematic situations are described, as well as the meanings in the life of the participants.

On the other hand, Taylor and Bogdan (1987), cited by Blasco and Pérez (2007:25-27), when referring to qualitative methodology as a way of approaching the empirical world, point out that in its broadest sense it is research that produces descriptive data: people's

words, spoken or written, and observable behavior. From the point of view of these authors, the qualitative research model can be distinguished by the following characteristics:

* Qualitative research is inductive. Researchers develop concepts and understandings from patterns in the data and do not collect data to evaluate preconceived models, hypotheses, or theories. Researchers follow a flexible research design, beginning their studies with vaguely formulated questions.

* In qualitative methodology, the researcher views the setting and the people in a holistic perspective; people, settings or groups are not reduced to variables, but are considered as a whole. People are studied in the context of their past and the current situations in which they find themselves.

* Qualitative researchers are sensitive to the effects they themselves have created on the people they are studying. The researcher interacts with informants in a natural and non-intrusive way.

* Qualitative researchers try to understand people within the frame of reference of themselves. From a phenomenological point of view and for qualitative research it is essential to experience reality as others perceive it.

Thus, the qualitative researcher identifies with the people he/she studies in order to understand how they see things.

* The qualitative researcher sets aside his or her own beliefs, perspectives, and biases. The researcher sees things as if they are happening for the first time. Nothing is taken for granted, everything is a subject of investigation.

* For the qualitative researcher all perspectives are valuable. He/she does not seek truth or morality, but a detailed understanding of other people's perspectives. These are points that cover research with a qualitative approach.

For qualitative research you need a main author to support the theory and monitoring of the project, in this case my main author is Sergio Tobon.

Sergio Tobon and conceptual mapping.

Dr. Tobón is a researcher in socio-training, pedagogical practices, educational reform, learning assessment and talent development in Mexico. He supports several countries in curriculum transformation through socio-training.

Sergio Tobón explains Conceptual Cartography as a strategy that allows the construction and communication of concepts based on complex thinking, using verbal, non-verbal and spatial aspects.

As Tobón (2004) defines it, it is "a strategy for constructing and communicating concepts based on complex thinking, through verbal, nonverbal and spatial aspects" (p. 11).

The same author (Tobón, González, Nambo & Vázquez, 2015) points out that the technique "consists of studying a concept in depth in order to systematize the existing information about it, build the missing aspects based on the information that exists, understand it and communicate it clearly in the academic community" (p. 9).

Conceptual mapping maintains the unity of the analyzed object, while finding the hologrammatic, recursive and dialogical relationships that its parts maintain with each other,

with the object and with the context in which it is found. Thus, it is not a Cartesian but a complex analytical technique.

Conceptual Cartography (CC) is a strategy for the construction and communication of concepts based on complex thinking, through verbal, non-verbal and spatial aspects. Its purpose is to support the construction of knowledge within the general framework of the formation of cognitive competencies.

CC provides a precise method for constructing academic concepts and communicating them, showing their relationships and organization, which makes the process of understanding possible.

Structural axes

Conceptual Cartography proposes seven axes to build concepts in a standardized way, which are as follows:

- Notional axis: An approach to the concept is given by establishing its current definition and the origin of the word or words of which it is composed.
- Categorical axis: The general class of concepts within which the concept in question is included is described.
- Differentiation axis: One or several propositions are established in which the difference between the concept and other similar concepts is shown.
- Exemplification axis: Propositions that exemplify the concept with specific cases are described.
- Characterization axis: The essential characteristics of the concept are described.

- Subdivision axis: The classes into which the concept is classified or divided are constructed.

- Linking axis: The relationships of the concept with other concepts that are important from the semantic or contextual point of view are established.

Action research analysis.

Once the proposal was designed, action research was used to evaluate it based on the work done with group E of the first year of the Escuela Secundaria Federal 11 "Licenciado Benito Juárez".

In the scenarios of scientific research over the centuries, great changes have been generated that mark significant differences in the way the object of study is approached. When reviewing the history and evolution of research, it is divided into stages well delimited by two major perspectives or approaches that in turn have led to the development of different trends or methodologies that allow to enter the field of research by different ways.

The birth of qualitative research is seen from different points of view by authors dedicated to its historical review. In this regard, Esté de Villarroel (2006), highlights its origins in the time of Aristotle and Plato, but focuses on details about the contribution of Aristotle (384-322 B.C.) who devoted much of his life to philosophy, observation and education.

Now, according to Taylor and Bodgan (1987), qualitative methods have a rich history in American sociology, their use was first disseminated in the studies of the Chicago School in the period from approximately 1910 to 1940.

These authors describe the term qualitative methodology as follows: "refers in its broadest sense to research that produces descriptive data: people's own words, spoken and written, and observable behavior" (p. 20).

Qualitative research emerges in educational scenarios hand in hand with anthropology and sociology. There are numerous authors and researchers who confirm this, among them Paz Sandín (2003), points out that in 1940 the sociologist Mirra Komarovsky carried out a study on women in higher education, in which she studied the effect of cultural values on attitudes and the role of women, which constituted an important reference document in the 1970s.

Proposal evaluation.

According to Eisner (1998) "Educational evaluation is a complex expert activity that involves not only appreciating and experiencing the significant qualities of the educational work, but also demands the ability to reveal to the audience what has been observed not as mere translation but as a reconstruction of the work in the form of an argued narrative." (pp. 164).

According to Poggioli (1998), qualitative assessment aims to evaluate the learning process by describing what the student has achieved, what is still to be achieved and what has not been achieved.

Example:

- Evaluation activities What will I evaluate? Oral presentations.

- Techniques What will I do to evaluate? Observation

- Instruments With what will I evaluate? Oral presentations, Checklist, Anecdotal record, Descriptive record, Class journal, Observation guide.

Phase 2 Design of the technological resource "Discord".

Once the proposal for English language teaching was ready, I followed the development of the "discord" tool. It doesn't take much to set up a Discord server: a free account and the Discord application is all you need. Learn here how to set up your own Discord server and what you can do with it.

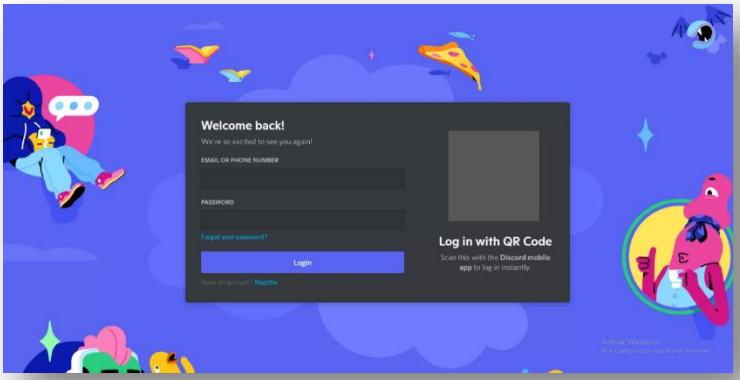
What is a Discord server?

A Discord server can also be understood as a community meeting place for like-minded people. The Discord chat application offers its users the possibility to create their own public servers and use them as a platform to exchange ideas, news or interests. On a Discord server, you have the possibility to create several voice and text channels, invite friends and followers and talk to your Discord contacts using features such as voice and video chats.

Here you can easily stream live multiplayer events and bring the community together. You can also create several Discord servers divided by topic to create online meeting places with their own channels for different study communities e.g.

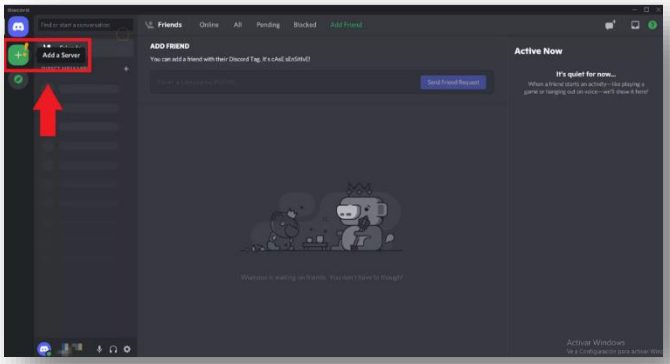
Create a discord server step by step for pc.

Step 1. Access the Discord desktop or smartphone/tablet app and log in to your Discord account with your login details. As English teachers this step is very good not only because we already know the relationship of using an email, but also because we can practice vocabulary.



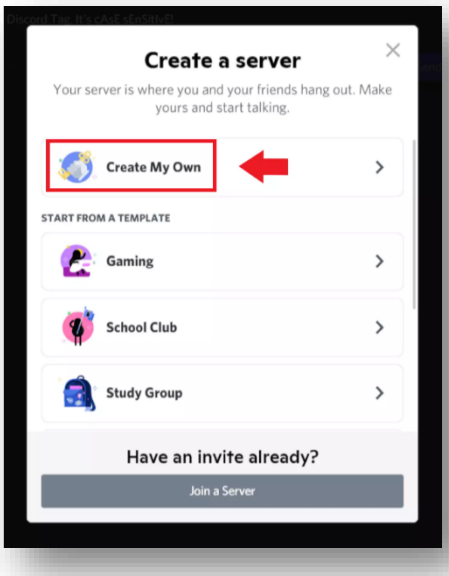
Step 2. In the Discord application, click on the "+" symbol for "Add Server" in the left menu bar. We have to keep in mind that as English teachers we have to follow some steps

where we can practice vocabulary with the students in different steps in the creation of the

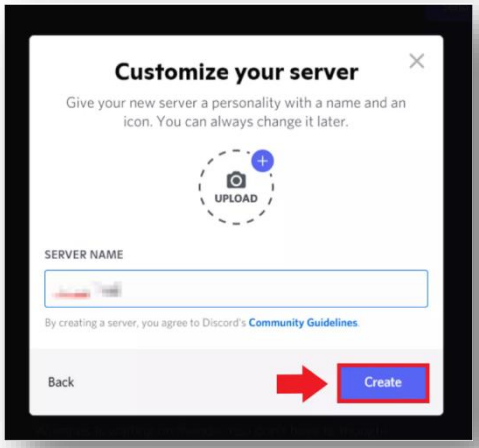


channel**.**

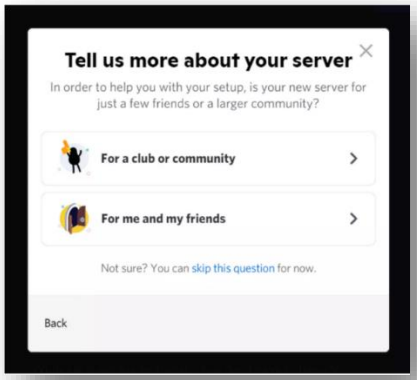
Step 3. A window will now open where you can choose to join a server or create your own Discord server. Click on "Create server". When we create the server where the students will work we can already start with the social language practice by reviewing the steps and instructions.



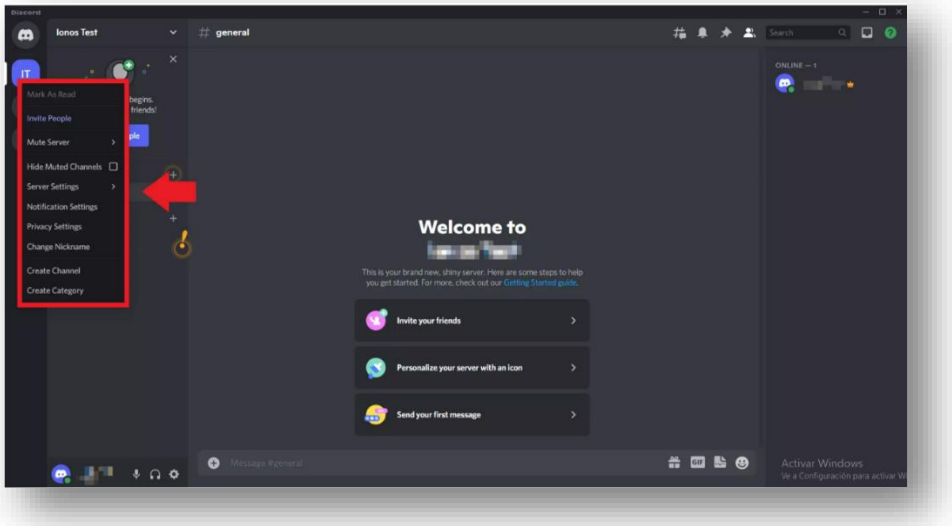
Step 4. First, specify whether the server will be for you and your friends or for an official club or community. This question can be omitted**.**



Step 5. Now the menu for creating your own Discord server opens. Here you specify the name of the server. Once you have named the server, click "Create".

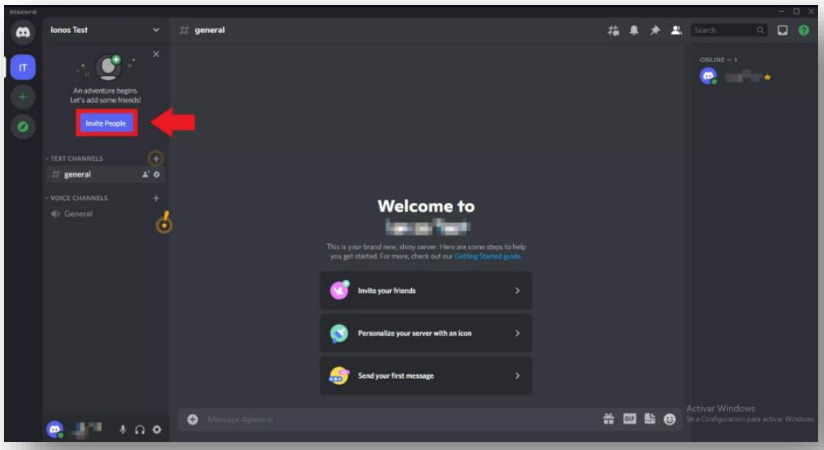


Step 6. Your new Discord server is ready for you to use. Now you can invite your Discord friends directly.



Step 7. If you want to make changes to the Discord server, right-click on the server's profile picture at the top left. Here you will find options like "Invite people" or "Mute server".

In addition, there is the "Server settings" menu with notification and privacy settings.



In case the server is opened from a Smartphone or Tablet, the format may change, the channel configuration is similar, although it changes in some parameters.

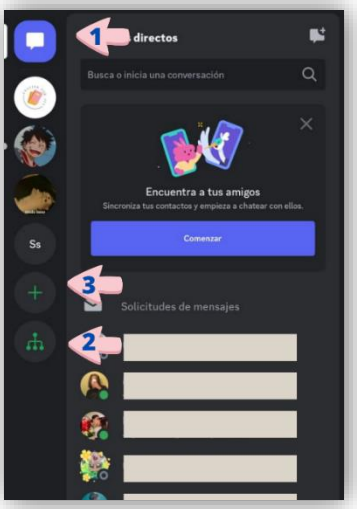
1. - As a first step you have to download the "Discord" application in the electronic device (Tablet, Smartphone) you want.

Once you have downloaded the "Discord" application, you have to open an account in the application.

When the Discord application is open you will have several "parameters", the application will give you the option to add "friends" to your account through a code or "nickname". For this step it is necessary to take into account the students that you want to add, we can already provide our code or to lose the one of the students.

The first view of the screen will allow us to see on the upper left side a "message" icon that will allow us to see the messages in the inbox 1, a "more" icon that allows us to

create a channel within the application 2 and an icon to add friends 3.



At the bottom from left to right 5 icons:

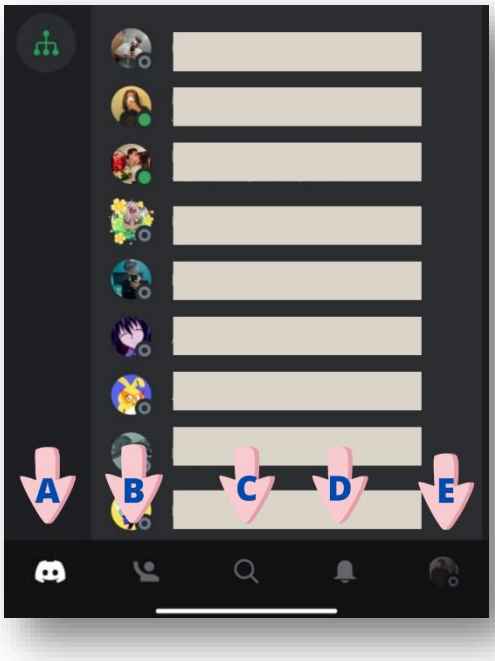
A) The first icon is the classic "discord" icon that takes us to the main screen.

B) The second one is the "Friends" icon that will allow us to find our friends, already added.

C) The third one is a "magnifying glass" icon that if possible will take us to the servers where we are registered.

D) The fourth icon is the "notifications" icon that will notify us whenever you have new messages, or new news.

E) And finally the icon of our profile that will take us to our discord profile, where we will be able to edit everything related to our account.



It should be noted that if you wish to configure the channel, the indications are the same as for the configuration of the computer system.

The advantages of the support of an artificial intelligence "Bots".

A Discord bot takes care of various automated tasks on your server channels. The prerequisite for this is to have your own Discord channel. With our instructions you will learn how to add an already programmed Discord bot to your server or how to create your own Discord bot.

Add a preprogrammed bot to Discord:

1. Select a Discord bot from a web page with collected bots (e.g. "top.gg").

2. Click "Invite" on the bot's web page.
3. Select your partner server and give the bot the necessary permissions.
4. The bot will be added to your Discord server.

What is a Discord bot?

Bots have become an integral part of the Internet. As automated programs, they can independently fulfill a wide variety of functions and can be used, for example, in customer service as advisors, in social networks to collect data or as web crawlers to improve search engines. In Discord, users can also use bots with various functions to increase the functionality or entertainment value of their Discord servers.

The most popular Discord bots are:

- Discord music bots, which automatically play song requests.
- Voice command bots for Discord voice control
- Multi-purpose bots, with different functions at the same time, e.g. game integration, automatic notifications and moderation tasks
- Translation bots
- Statistics bots for analyzing your server data

In case the teacher on duty prefers the creation of a specific bot to assign it a unique task, different steps must be followed.

Axis of exemplification.

This axis refers to the incorporation of concrete and specific examples within a concept map. This axis seeks to illustrate and exemplify the concepts represented in the map,

providing cases or situations that allow a better understanding of their meaning and application.

The application project was applied in the school Licenciado Benito Juarez which is located in Naucalpan de Juarez in the state of Mexico, The middle school has several groups as well as grades, from first year, second year and third year as well as group A to group F, in a small interview with the directors and some teachers my ideal group was the first year group group E, since they had the lowest rate of learning in the subject of English, along with the lowest grades of some students.

The application of the proposal for the use of unconventional technological resources as support tools for the English teacher was divided into several phases. For a better understanding of these phases, the following figure is presented as part of action research:

Figure 7 .Research, action and application proposal.

In order to implement the project, two things had to be taken into account: the educational needs to be met with respect to the students and that the students have the opportunity to improve their autonomy in learning a second English language.

The application chosen to serve as a tool to improve learning in students was "Discord" an instant messaging service application and voice chat that works through servers and is separated into text or voice channels, the main purpose was to use this application as a tool, and that the purpose of the application itself is to improve communication, however the purpose of this tool is to improve communication during a game of any video game.

It is from here that as a teacher of English I take the main challenge and intended as a tool to be used to improve the teaching and learning of English, not only seen as a working tool during the class, but also as a tool for practice at home. (appendix 2).

Planning and creation of a Discord channel for an English class.

To start creating the discord channel to use it as a support tool for teaching and learning of students we must have our objectives clear, in this case the discord channel should function not only to expose or participate in class, or as a conduit to give the English class if not also as a practice tool by this I mean that students should see the channel as a safe place where they can learn and have fun also on their own at home.

For this I started with the assignment of a name, in this case it was "English for all" meaning that the channel would not have any kind of limitations and would have an integration and inclusion with all students, here we started with the division of all the sections that could serve for our English class and as a reinforcement tool for the students.

Once the name of the discord channel was appropriate for learning and class purposes, I started dividing the channel sections by assigning a different proposition to each of them.

Firstly, a "Welcome" section where a personalized greeting would be displayed for each student not only to make the student feel at ease but also to motivate them to learn and remind them that they were in a safe space for learning and practicing the English language.

Then a section of "Information" destined to the rules of the channel, this had a very special purpose and that is that the students knew its benefits and also the rules to which they were attached, these rules were subject to the rules to promote a healthy coexistence among them and the proper use of the tool.

As a third section we have a space for "Suggestions" where the student can freely write their emotions when using the page, errors they may notice, some suggestions that may benefit the channel and the English class, as well as report any anomaly, next to this section there is also a space for "Approvals" which is dedicated to publish announcements that can be made at any time, a clear example of this is if the teacher forgets to leave some homework material, just publish it in this section and the students will be aware of it.

The next section is "Practicing speech" which is a space where there is only voice chat and is made for students to upload audios of homework where they practice the use of language promoting the improvement of their speaking skills of the second language English.

To continue the social language practice we have the "Game Trivia" section where students practice the social language use of the English language with the help of some trivia questions based on their personal interests, such as favorite movies, countries they would like to visit or their favorite clothes, in this section the questions are drawn in English, and the student can reinforce previous knowledge in English class, or at home play or challenge some friends for the highest score.

To continue we have the section "Classes" where as a teacher you can divide as many groups as you have, in my case only the first, second and third year group, emphasizing my first year group where I would evaluate the learning. In this same section I subdivided the space for homework as "Homework 1E", and the one for class activities as "Activities 1E" with the purpose of having a more orderly follow up of the different purposes with the English class.

One of the most important sections is the next one defined as "Practice Tool" which has two divisions the first one "Course English For All" and a "Speaking Practice", the purpose of this section was a more personal desire as a teacher, since I wanted to divide into groups of practice according to the level of mastery of the second language English.

Along with the previous section is the "Free learning" space where students during English class or at home could work in teams to practice or work on an English assignment or other middle school subject.

Finally I liked the idea of supporting a space that favors coexistence and creativity, as well as a space dedicated to relax and a little outside the direct work with the subject, so I added the section "Music Relax" where students can listen to the songs they prefer to work on their daily school work, being rewarded if they listen to music or songs in English language, although they are also free to listen to any genre of music, only excluding the music of some specific artists that through their lyrics promote hatred, and attempt against the healthy coexistence.

Sub Tools for teacher support in the "Discord" channel

Once all the sections and their purposes have been reviewed, let's talk a little about all those sub tools that support the teacher within the discord application, in order to carry out each of the tasks and activities in the classroom along with the tasks that students must solve at home, I added some artificial intelligences (BOTS) that could support me when teaching the English class, to these "BOTS" I assigned divided tasks, as an example in the first section "Welcome" the bot helps me to give all the personalized greetings for each student, in the same way there are others to register the roll call or to play specific music.

Applicable project ready for the classroom.

Once the discord channel was ready to be used as a didactic support tool to teach English classes, the project was ready to be applied, however I decided to start with a diagnostic test to the whole group (Appendix 2).

Once the discord channel was ready and the tools at the teacher's disposal it was also time to start with the selection of students and work together with the computer classroom teacher.

Although the number of first year students in group E is 40 being 15 males and 25 females, I decided to choose only a sample group of 10 students, my choice of them was not random but based on their diagnostic test results having from 5 to 14 points out of a total of 23.

The project was initiated during the 3rd day of practice the first week from February 15 to 28 (apendix 1), where I organized together with the computer teacher the next days to

work, also reviewing the computer equipment to confirm that these were adequate and suitable for using the technological resource as a teaching tool "discord".

Here is where I would like to emphasize that by school dispocision it was forbidden to install any type of digital resource (program, software) on the computers, this although intended to be a threat to the project was not, since the technological resource "discord" can work through any browser, and the computers had the "google" browser.

When it was already organized in times with the teacher of the computer room and the computers were ready, it was time to start the next part of the project, the work with the students of 1 year group E.

To continue with the order of the technological resources as didactic tools, it was time to make a planning that met the educational needs of students, in this case this attached to plans and programs of the SEP where students would improve the social practice of language.

The topics that were seen were various, however a whole project was built around the topic "clothes" where students would start from understanding basic clothing vocabulary to more advanced skills where they could "sell" clothes, ask for prices, and use all the basic vocabulary appropriately.

This project applied to the topic of "Clothes" was divided into 4 months starting in the month of February, where students would begin with simple vocabulary practice activities with various activities (Appendix 3-4).

During the first week of February on the 13th the first year students had a presentation that comprised only 15 minutes where the teacher presented the application and the basic topics to work on the English subject, along with this, I helped the students to create their

account in the tool "Discord", to my surprise my only 4 students had problems not fully understand how to create an account.

During the second week of February from Monday 20 to Thursday 23 the first year students with the help of the teacher would have a "first contact" with the application in the computer room, in this class that comprised only 50 minutes the students started their account in the computer room, I solved student's doubts about the tasks, jobs and time assignments to work from home.

For the third and fourth week the first year students would start with simple vocabulary practice where they would add in the discord channel 3 clothes in English that they liked a lot and they would do it in a "Top 3", here the first problem arose which was that most of the students forgot to do their homework and add those 3 clothes, but it was quickly solved with messages from the teacher where he reminded them to upload their homework.

During the first week of March from March 1 to 10, due to the English teacher's decision it was necessary to show the vocabulary of "Familiy members" in a practical and quick way since they would have a special activity on behalf of the English academy, this was not a problem since through the tool "Discord" the students could watch 3 videos, practice vocabulary and to make the vocabulary clear they created a "Tree of family members".

During the week of March 21-30, classes were suspended because the school was being remodeled, this was intended to be a threat to the continuation of the project, however it was not because thanks to the "discord" tool we could continue working remotely where the students continued with the "clothes" project, as they had already practiced vocabulary

continuously they would now describe their favorite clothes in the activity "This is my outfit" and write in the homework section of the "discord" tool their favorite outfit being specific with their sizes and colors of their clothes and clothing accessories.

During the third week of April 17-21 the first year students practiced assigning "prices" for their favorite clothing items, and through the tool "Discord" the students agreed to start forming teams and make some posters where they would write their favorite clothing items along with their assigned prices using phrases such as "This is the price of", "how much is this clothing item?", "this clothing item is very expensive" and "this clothing item is very cheap".

For the last week of the project from April 24-27, the students created their own "Clothing Stores" and the teams were divided into two sub-teams, one team selling the clothes and the other buying the clothes, (Appendix 4) this annex shows how the students were able to work as a team using basic language skills.

For the evaluation of the project, a rubric was created that evaluated in teams their basic language skills such as: speaking, writing, listening and reading.

Once each team was evaluated, the grade was assigned to the students through the "Discord" tool so that it could be reviewed by each team and if there were any clarifications, the correction could be made.

As can be seen throughout the exemplification the tool "Discord" was not the conduit for teaching, however it was the tool with which we worked fulfilling all the aspect that the teacher needed at the time, even for risk situations such as the cancellation of classes for two weeks, the tool "disocord" not only replaced applications such as "google classroom", but

also fulfilled satisfactorily with all those sub tools necessary to teach the English class, as well as to practice from home by students.

Obstacles and Challenges to design this proposal and its implementation.

ICTs are a great ally for teaching, but their indiscriminate use can be a threat to the cognitive and socioemotional development of students.

Obstacles.

One of the first obstacles that the teacher on duty may encounter, taking into account that he/she has access to all those materials necessary for teaching through the use of technological resources, may be that the students do not have knowledge of the use of a computer system, along with this problem we must also take into account that they may not use the computer system appropriately.

A situational obstacle when trying to teach a class is that the power goes out and leaves the computer systems or the wifi or internet system unusable.

One of the most common mistakes among teachers is, as teachers of a digital native generation, sometimes it may seem that students already spend too much time in front of a screen to also do so during classes.

The availability of gadgets and disposable content has been interpreted as a danger to training and the last thing we want is to become dependent on them to do their job.

Today, it is common to hear from proponents of traditional teaching that technology and the Internet are responsible for an accelerated loss of cognitive skills and interest in education in the new generations.

One common complaint, for example, is that students no longer know how to do research or use a library because all the information they need seems to be just a click away. Another is that attention spans in the classroom are getting shorter and shorter because they are subjected to constant bursts of distractions.

And speaking about distractors during a traditional class we have to take many precautions, now in a class where we use technological resources there are even more distractors, one of the most common obstacles is that students use the computer systems for their own purposes, such as opening social networks, or open a page of video games.

Based on the previous paragraph, it is important to mention that one of the biggest challenges that teachers face when teaching through technological resources is to monitor and be attentive to the students at all times.

Challenges when using common commands within an English class in discord.

One of the main problems that the student may encounter when using the application in an English class, is the use and knowledge of common commands, these can allow you to pass assistance, activate a help bot or just for entertainment like playing music.

However a big challenge is that you have to put a lot of emphasis on memorizing them, because they are in English, and although there are few, students tend to get confused with them, my recommendation is to use these commands less and prioritize the simple use of the application through the written and voice chat to review a topic.

Challenges when designing in the application.

The biggest challenge that we can find when designing the channel within the application is precisely the use and knowledge of it, since we have to have knowledge about the name of each of the tools within the application, such as the configuration, configuration, etc.

Adding a new channel and dividing it by text and voice chat sections are the two main parts to execute the application project, however if what we are looking for is to develop and use discord bots to support the roll call, to reward students and the organization in general, we should know about not so complex commands that help us to have a complete control of our English language class.

The design of our Discord channel depends on our English class needs and our objectives within our lesson plan, having this in mind it is very important to talk about rules for our chat and class organization.

As an example, we can develop a specific regulation for our students where we clarify our needs and those of the students with respect to the class or moderation.

For example: Figure 5

It should be noted that each of the rules must be specified so that students can take each one into account and better understand them.

Conclusions.

These are the conclusions or evaluation of my proposal, based on the action research methodology with which I was able to observe the development of the proposal and evaluate its impact.

The investigation of the proposal determines that while the use of technological resources as support tools for the teacher, such as "Discord" or physical technological resources such as a "computer system, projector or cell phone" contribute to improve the

learning of students as well as their basic language skills, we also favor and encourage learning through these resources.

While in situations where teachers do not use innovative technological resources for their class, students are mostly impaired with respect to their learning since they do not feel motivated, and in some cases learning tends to be repetitive or ambiguous.

The above allows us to support our assumption, since the students' learning was favored in the 2nd grade classroom, group E. It is clear that although it was the group selected to work with, the project is applicable to any group and subject.

However, it should not be forgotten that there is part of "traditional" education that can still be used and is functional today, since throughout the course of this project technological resources were only used as tools, not as a direct conduit for teaching English.

Discord is a popular online communication application that, if used properly, can support English language learning in the four main skills. Below, I'll show you how Discord can be beneficial for each of the skills:

1- (Listening): Voice servers - Discord allows for the creation of voice channels where students can participate in English conversations. This gives them the opportunity to practice listening comprehension by hearing and understanding native speakers or other students practicing English.

2- (Speaking): Voice Channels - Discord offers the option of voice channels where students can participate in group or one-on-one conversations in English. This provides them with a practice environment to improve their fluency, pronunciation and speaking skills.

3- (Reading): Text Chat - Discord has a text chat feature on the servers. Students can join study groups or communities related to learning English and participate in written conversations. This gives them the opportunity to read and understand messages in English, which helps improve their reading skills.

4- (Writing): Text Chat: Discord provides a space for students to communicate in writing in chat channels. They can participate in discussions, ask questions, write short essays, give written feedback, among others. This allows them to practice their English writing, improve their grammar, vocabulary and composition skills.

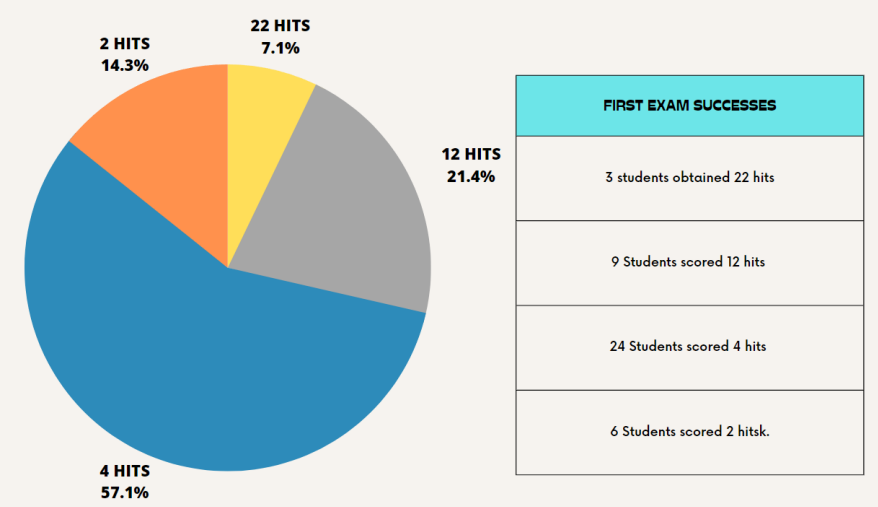
In addition to these advantages, Discord also offers additional features that can be beneficial for learning English, such as the ability to share files, links and multimedia resources, as well as the integration of educational bots that provide interactive exercises and study material.

However, it is important to note that the effectiveness of Discord in English language education will depend on how it is used. It is essential to establish specific study groups or channels for language learning, encourage active student participation and provide constructive feedback to maximize the benefits of the application in the development of the four English skills.

With the support of these tools, the improvement of the English class was favored, or at the time the practice of the same language through tasks with digital delivery on the "discord" platform. It should be noted that throughout the project research and the use of the technological resource "discord" as a didactic tool, the classes were not left aside through "classic" didactic resources such as the use of the white board or markers, or more common technological resources such as the computer and the projector.

Once the project was implemented and completed, comparisons were made to see if the results were favorable or if there are still areas for improvement in the proposed use of technological resources as teaching tools, for this a comparison was made of the application of a diagnostic test at the beginning and at the end of the project, in the same way also obtained data on the level of development of students with respect to the use of vocabulary base with respect to the project as well as the domain of base phrases with respect to the different topics seen.

Below you can see the average English level of the students at the beginning of the project through the diagnostic test (appendix 1).



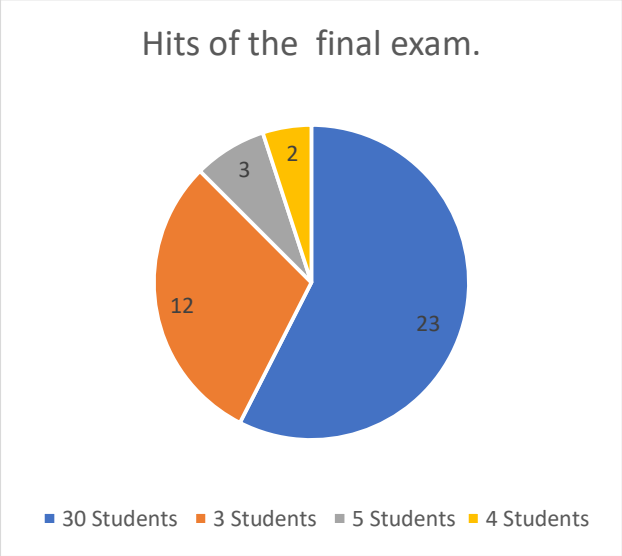
As can be seen in the graph above showing the number of students and the number of correct scores on their first diagnostic test, it can be seen that a little more than 50% lack basic language and vocabulary skills.

Now to solve this I had to not only meet the educational needs of students but innovate in practice using the technological resources proposed in the project, which was what was proposed from the beginning.

One of the evident results was that the students felt very motivated when working in class and at home with the "discord" tool, however I had to be careful not to fall into situations too attached to behaviorism, because although it is true that the students when practicing the second English language received a compensation, it was not constant and was almost nonexistent, to the point that the students got feelings of self-realization when using a support tool for their learning.

The different knowledge was built little by little and in sectioned parts, as mentioned before, we started using only basic vocabulary with didactic proposals, this supported with the tool "Discord" resulted in a resounding success in the students.

In the following graph you can see the results of the students on the same diagnostic test 4 months and a half after having been applied for the first time, it is noteworthy that within the 50% of students who improved their skills, as well as the use of vocabulary are the 10 students in the sample group for the study. Having an exponential improvement of more than 85%.



The design of a Discord channel for middle school students in the subject of English offers a flexible and accessible solution for learning. Discord allows access from different devices, which facilitates student participation from anywhere and at any time. In addition, resources and study materials can be easily shared and accessed through the platform, giving students the opportunity to review and deepen concepts learned.

The interactive nature of Discord encourages communication and collaboration among students. By creating voice and text channels, students can interact with each other, practice their English conversation skills, and share ideas and resources instantly. This promotes a collaborative learning environment, where students can help each other and learn from different perspectives.

The Discord channel designed for middle school English language learners can integrate a variety of supplementary resources. For example, educational bots that provide interactive exercises, vocabulary, grammar and listening comprehension quizzes can be incorporated. In addition, links can be shared to websites and apps that offer interactive lessons, educational videos, and playful activities related to learning English. These additional resources will enrich students' learning experience and motivate them to continue improving their skills.

Sergio Tobón's concept mapping provides a visual structure that facilitates the organization and clarity of knowledge. During the development of the educational project, I used concept mapping to identify the key concepts related to the topic of study and establish relationships between them. This graphic representation allowed students to visualize the conceptual structure in a clear way, facilitating the understanding and retention of information.

Using the axes of sergio tobon's cartography, I was able to divide the work in an organized manner and focus on each one in a specific way during the development of the project.

For the evaluation of the proposal I used action research, where I followed a series of steps such as: the identification of the problem where I defined the problem, an important point here is that the problem had to be relevant and had to have an impact on a specific context which was the "Escuela Secundaria Federal 11 Licenciado Benito Juarez".

I then reviewed the proposal planning where I described how I intended to address the identified problem. I defined specific objectives, implementation strategies, necessary resources and deadlines, followed by the implementation of the project, the collection of data (results), the analysis of the same.

Once the data had been analyzed came the reflection and action where I reflected on the data obtained and the reasons for it in order to have a correct feedback and finally an improvement of the proposal.

The knowledge I needed during the development of the proposal and the application, with all that it takes to develop a project, made me remember all the advantages that my university life at the Escuela Normal de Atizapan de Zaragoza gave me. I learned about different pedagogical approaches, teaching strategies, learning assessment and classroom management, among other relevant aspects. This training has allowed me to have a deep understanding of educational processes and has given me the necessary tools to face the challenges that arise in my university life.

In addition, the Escuela Normal de Atizapán de Zaragoza provided me with ample experience in teaching practices. During my studies, I had the opportunity to do internships at various educational levels and work directly with students. This experience allowed me to apply the theoretical knowledge acquired in a real environment, which has been of great

value in my university life. Thanks to these internships, I have developed planning, teaching, time management and group management skills, which are highly valued in the university context.

Attending the Normal School also gave me the opportunity to be part of a community of education professionals. During my time at the school, I was able to network with experienced teachers and fellow students who shared my passion for teaching. This networking has been invaluable in my college life, as it has allowed me to access different resources, exchange ideas, and receive support in my academic and professional development.

English teachers at the secondary level face several challenges in relation to educational innovation through the use of technology. Some of these challenges include:

Access and availability of technology: one of the most common challenges is the availability and access to the necessary technology in classrooms. Not all educational centers have sufficient technological devices and resources, which limits the effective implementation of educational innovation. In addition, lack of connectivity or slow internet connections can hinder the use of online tools and resources.

Technology training and competencies: Many secondary English teachers may face difficulties in acquiring the necessary skills and competencies to effectively integrate technology into their teaching. Teacher training in the use of educational technologies may be limited, which can lead to insecurity or lack of knowledge to use digital tools and resources effectively.

Updating resources and content: The rapid evolution of technology requires English teachers to constantly update their educational resources and content. This involves keeping abreast of new digital tools, applications, platforms and resources available, as well as adapting teaching materials to take full advantage of available technologies.

Pedagogical approach: Integrating technology into English language teaching requires an appropriate pedagogical approach. Teachers must ensure that the use of technology is aligned with learning objectives, promotes active student participation, and fosters the development of English language skills. This involves finding a balance between the use of technology and other more traditional teaching strategies.

Assessment for learning: Assessment for learning can also present challenges when using technology in the English classroom. Teachers must find effective ways to assess student progress and performance in a technological environment, whether through creating online assessments, tracking digital activities, or personalized feedback.

Despite these challenges, educational innovation through the use of technologies can offer significant benefits in secondary English instruction. Teachers can leverage digital tools and resources to enhance student motivation, promote active language practice, facilitate collaboration and the exchange of ideas, and expand learning opportunities beyond the traditional classroom. With the right support, ongoing training, and exploration of new strategies, English teachers can overcome these challenges and use technology effectively to enrich their students' education.

It can be concluded that reviewing and taking into account the different plans and programs proposed by the SEP, as well as an adequate use and knowledge about the different

technological resources as didactic tools result in knowledge of even easier access for students, thus favoring their learning. So I can make it clear that the application of the Project directed to different subjects could have the same results or even improve them, there are many possibilities.

My path during the development of this degree document has left me with many lessons, that although I was able to reinforce some knowledge and use some others, there is no doubt that I also learned that I need to continue building and forming some skills with respect to education.

References

Adell, J. (15 de Abril de 1997). Tendencias en Educacionen la Sociedad de las Tecnologias de la informacion. *EDUTEC*. Recuperado el 26 de Enero de 2023, de http://ww.ubi.es/depart/gte/revelec.html

Alegria, M. (2015). *Uso de las tic como estrategias que facilitan a los estuidantes la construccion de aprendizajes significativos. .* Guatemala.

Amores, A. y. (2019). *El uso de las TIC como herramientas de motivacion para alumnos de enseñanza secundaria obligatoria.* (Vol. 3). Revista cuatrimestral de divulgacion cientifica.

Angie., V. (13 de Diciembre de 2009). *Portal Educativo*. Obtenido de http://redescolar.ilce.edu.mx/Tecnologia Educativa

Arias, E. (Diciembre de 2008). *Diccionario Etimologico*. Recuperado el 26 de Febrero de 2023, de https://www.diccionariodedudas.com/etimologias/

Braslavsky, C. (6 de Febrero de 2001). *Educativa Learning*. Recuperado el 3 de Enero de 2023, de http:/www.educativa learning.com/articulo/tecnologia educativa tecnologia/5910-1

Cabero, J. (6 de Febrero de 1996). Nuevas Tecnologias, Comunicacion y Educacion. *Revista electronica educativa.* Obtenido de www.uib.es/depart/dcweb/revelec.1.html

Gutierrez, A. (1997). *Educacion Multimedia y Nuevas Tecnologias.* Madrid: La torre.

J., S. (1997). Comunidades Virtuales y Aprendizaje Digital. *CONGRESO INTERNACIONAL EDUTEC' 2003 "Gestión de las Tecnologías de la Información y la Comunicación en los Diferentes Ámbitos Educativos"*. Recuperado el 10 de febrero de 2023

Martinez, A. (8 de Noviembre de 20022). *Repositorio Academico*. Obtenido de http://www.repositorioacademico.usmp.edu.pe/handle/usmo/1069

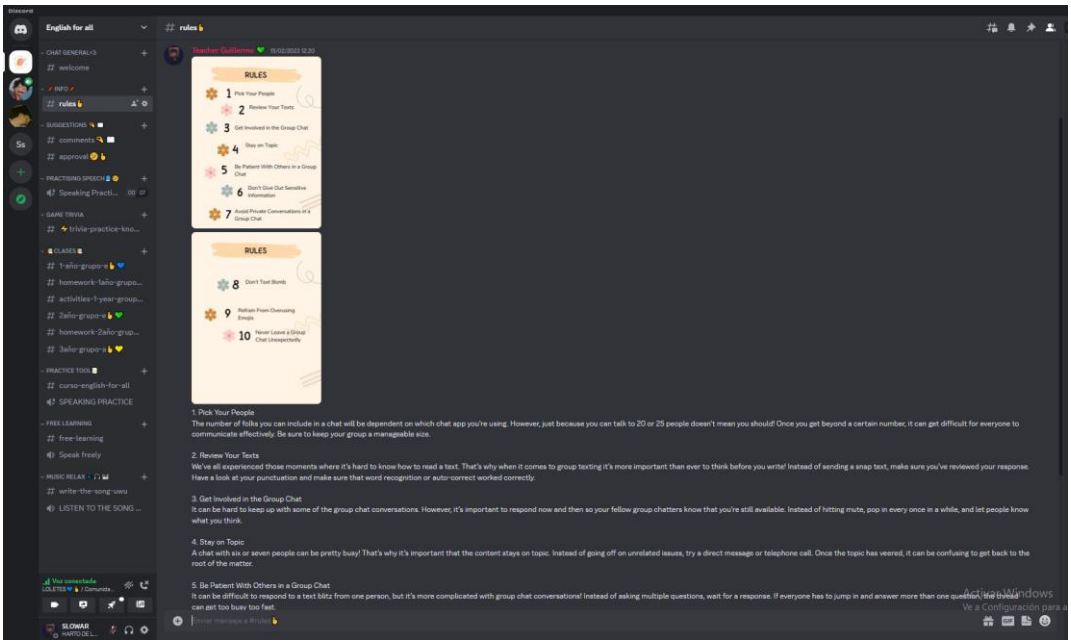
Martinez, A. (8 de Noviembre de 2022). *Repositorio Academico*. Recuperado el 3 de Febrero de 2023, de http://www.repositorioacademico.usmp.edu.pe/handle/usmp/1069

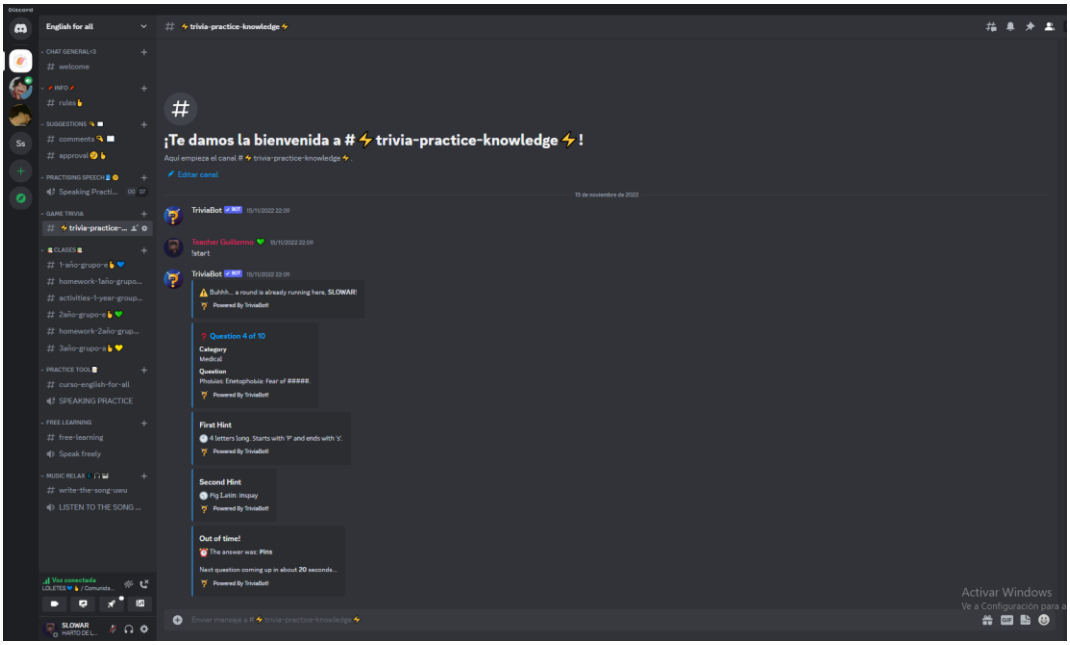
Ramirez, O. (13 de Febrero de 2008). *Somece*. Obtenido de http://www.somece.org.mx/simposio2004/Red Escolar

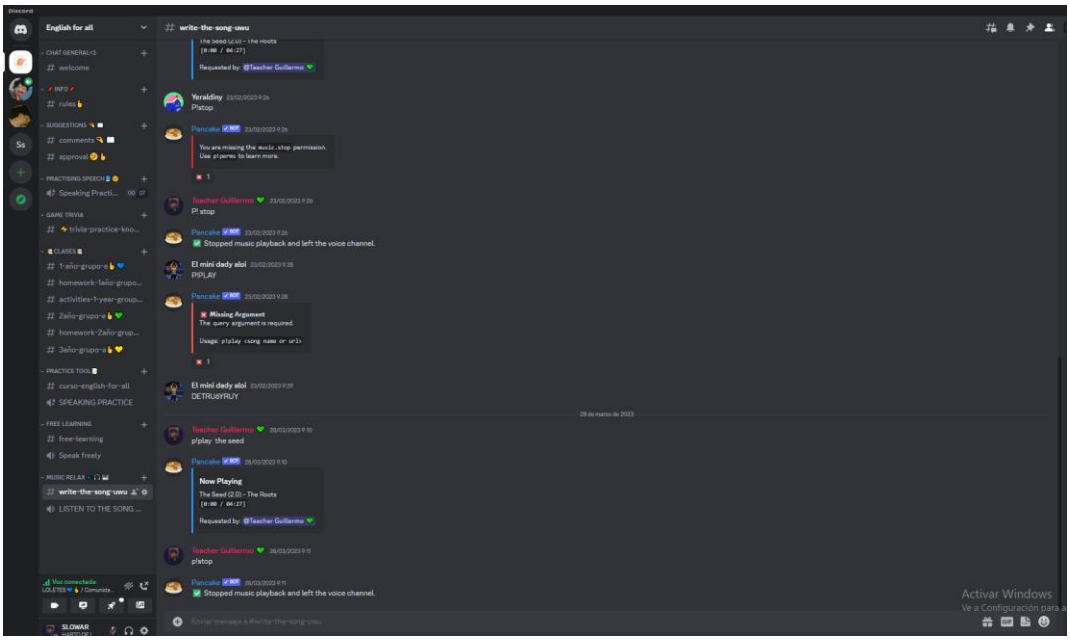
Tobon, S. (2004). La cartografia Conceptual. En S. Tobon., *La cartografia Conceptual.* Recuperado el 12 de Marzo de 2023

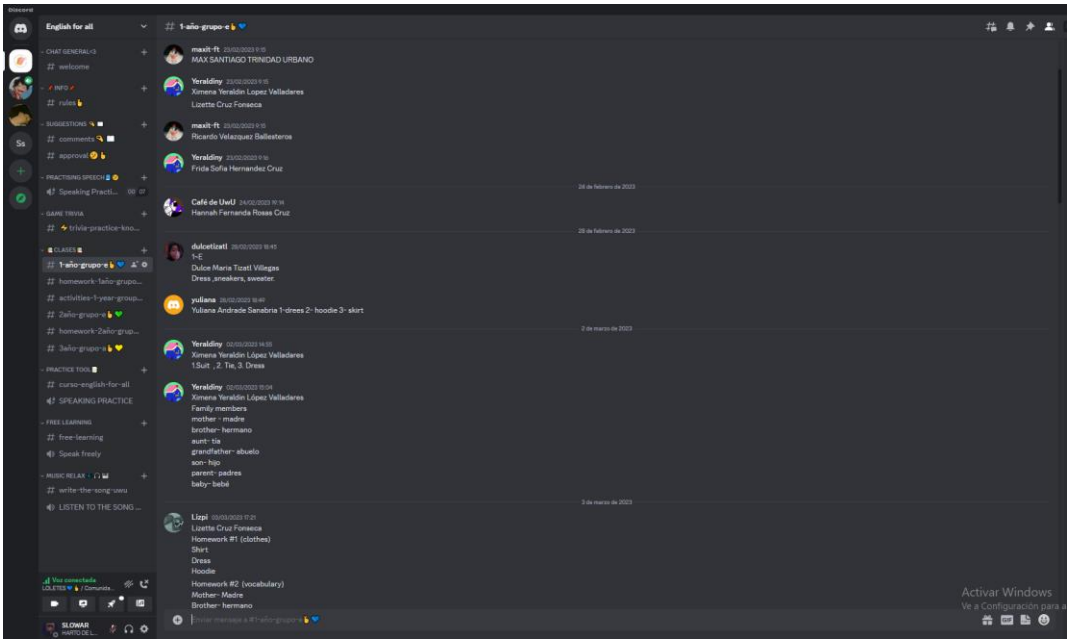
APPENDICES

Apendix 1. Tools used by students.






English for all
write-the-song-uwu
Yeraldiny
P!stop
Pancake
Stopped music playback and left the voice channel.
Teacher Guillermo
P! stop
El mini dady aloi
P!PLAY
Missing Argument
The query argument is required.
Usage: p!play <song name or url>
El mini dady aloi
DETRUSYRUY
p!play the seed
Now Playing
The Seed (2.0) - The Roots
Requested by: @Teacher Guillermo
p!stop
Stopped music playback and left the voice channel.
Activar Windows


English for all
1-año-grupo-c
maxit-ft
MAX SANTIAGO TRINIDAD URBANO
Yeraldiny
Ximena Yeraldin Lopez Valladares
Lizette Cruz Fonseca
maxit-ft
Ricardo Velazquez Ballesteros
Yeraldiny
Frida Sofia Hernandez Cruz
Café de UwU
Hannah Fernanda Rosas Cruz
dulcetizatl
1-E
Dulce Maria Tizatl Villegas
Dress ,sneakers, sweater.
yuliana
Yuliana Andrade Sanabria 1-dress 2- hoodie 3- skirt
Yeraldiny
Ximena Yeraldin López Valladares
1.Suit ,2. Tie, 3. Dress
Yeraldiny
Ximena Yeraldin López Valladares
Family members
mother - madre
brother- hermano
aunt- tia
grandfather- abuelo
son- hijo
parent- padres
baby- bebé
Lizpi
Lizette Cruz Fonseca
Homework #1 (clothes)
Shirt
Dress
Hoodie
Homework #2 (vocabulary)
Mother- Madre
Brother- hermano
Activar Windows

Apendix 2. Diagnostic Test.

NAME: GROUP: DATE:

I. Answer the following questions.

1. How often do you go running? R:
2. What do you do on Sundays? R:

II. Write the correct question.

A. _____

B. I have two brothers.

A._____

B. I live in Satelite.

A._____

B. I am teacher.

A._____

B. She lives in satelite.

A._____

B. Tony is 16 years old.

A._____

B. My birthday is on December 20 th.

A._____

B. My favorite food is salad.

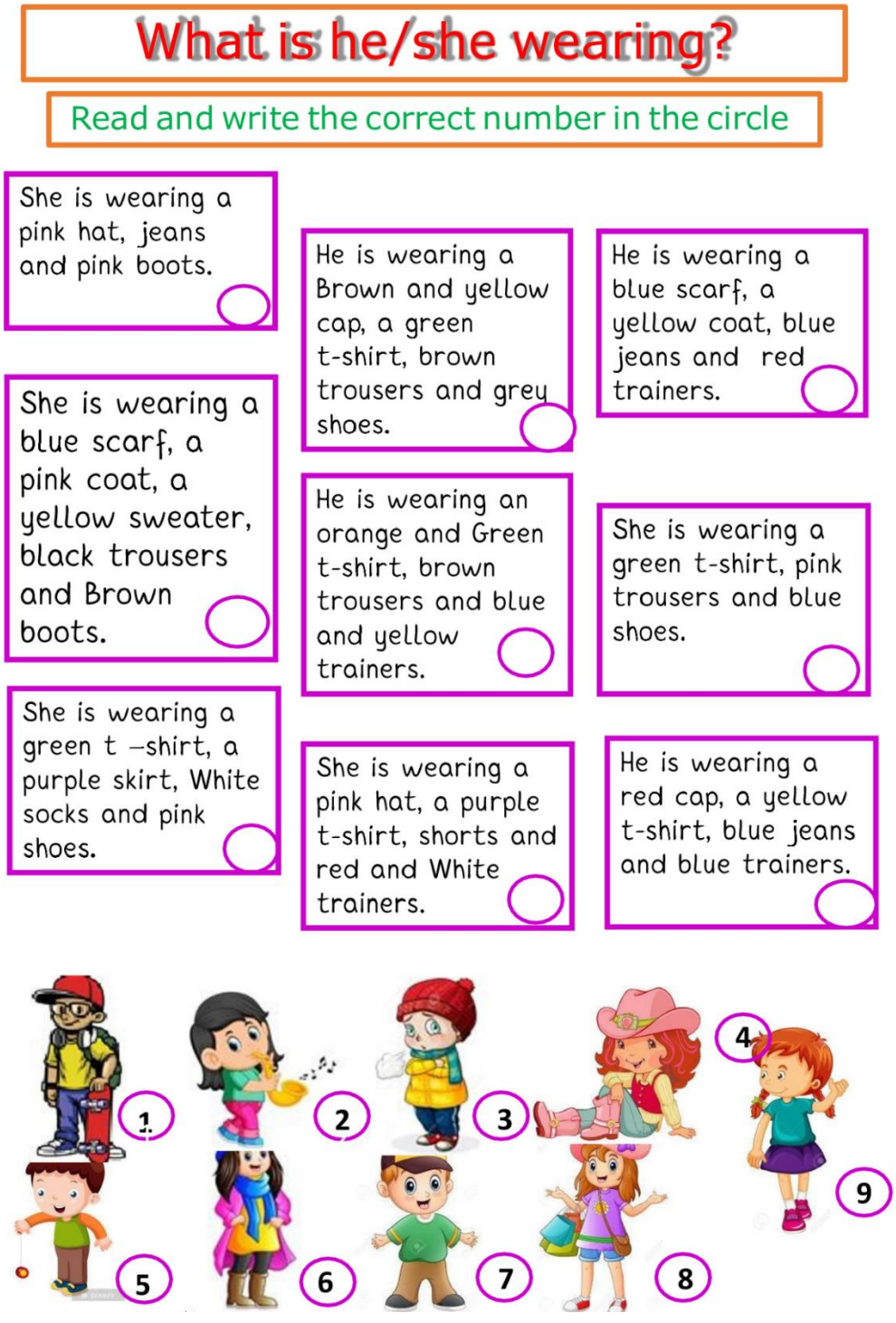
NAME: GROUP: DATE:

III. Complete the sentences with correct auxiliary verb: is, are do or does.

1. _____speak two languages?
2. _____you do your homework every day?
3. _____your friend live in Canda?
4. _____Laura work?
5. _____ Tony write poetry?
6. _____Peter wearing a black jacket?
7. _____they playing basket ball?
8. _____She happy?
9. _____they intellegent?

Apendix. 3-4 "Clothes" project activities.

Apendix. 3-4 "Clothes" project activities.



Apendix. 4 "Clothes" project activities.