UNIVERSITY OF EL SALVADOR

SCHOOL OF ARTS AND SCIENCES

DEPARTMENT OF FOREIGN LANGUAGES

"HOW AI CAN HELP STUDENTS TO DEVELOP SKILLS SUCH CRITICAL THINKING AND PROBLEM SOLVING"

"CÓMO LA INTELIGENCIA ARTIFICIAL PUEDE AYUDAR A LOS ESTUDIANTES A DESARROLLAR HABILIDADES COMO EL PENSAMIENTO CRÍTICO Y LA RESOLUCIÓN DE PROBLEMAS."

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FINAL REPORT FROM THE SPECIALIZATION COURSE IN THE ADMINISTRATION OF VIRTUAL ENVIRONMENTS FOR FOREIGN LANGUAGES TEACHING AND LEARNING"

IN ORDER TO OBTAIN THE DEGREE OF:

"BACHELOR OF ARTS IN ENGLISH WITH A MAJOR IN LANGUAGE TEACHING"

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Abstract

This report evaluates the role of artificial intelligence (AI) in fostering the development of critical thinking and problem-solving skills in educational contexts. As schools and universities continue integrating digital technologies, AI offers powerful opportunities to create learning environments that are more interactive, adaptive, and student centered to prioritize opportunities of progress in technological environments. The report begins by outlining the foundational principles of AI in education, with an emphasis on how intelligent systems can provide personalized challenges, simulations, and feedback that encourage students to analyze, evaluate, and create solutions rather than simply memorize information. By utilizing methodologies that adjust to a learner's development, artificial intelligence can assist students through increasingly complex tasks promoting deeper reasoning and reflective thinking. The second section of this work presents an overview of the activities completed during the specialization course, highlighting how participants engaged with digital tools such as Genially for interactive images and Google Slides for presentation design. These activities not only enhance students' technical skills but also encourage creativity, collaboration, and the application of critical thinking in practical contexts. Ultimately, this report demonstrates that the integration of artificial intelligence into educational design significantly enhances traditional teaching and learning methods. By embedding AI-driven activities into the curriculum, students are not only equipped with essential 21st-century technical skills, but are also encouraged to develop creativity, engage in meaningful collaboration, and apply critical thinking in practical, real world contexts.

Key words: Artificial intelligence, critical thinking, problem solving, education technology, virtual learning.

I. Introduction

The continuous advancement of digital technologies has reshaped education, creating new opportunities for innovation in teaching and learning. Among these innovations, Artificial Intelligence (AI) stands out as a transformative force capable of supporting not only instructional efficiency but also the development of higher-order skills. In modern academic and professional contexts, students are expected to think critically, analyze information, and solve problems effectively competencies that AI tools can strengthen through adaptive, interactive, and personalized learning experiences.

This report examines how AI contributes to developing critical thinking and problem-solving abilities, placed within the context of the Specialization Course in the Management of Virtual Environments for Teaching and Learning Foreign Languages. Over three modules, participants interacted with various digital platforms and AI-driven tools, utilizing them to develop activities, produce educational materials, and oversee online classrooms. The integration of theory and practice offered significant understandings of how technology can be effectively incorporated to improve student engagement, independence, and thoughtful learning.

Additionally, the report highlights the practical efforts and accomplishments developed during the course. It underscores how AI and technological tools were applied to design interactive lessons, produce multimedia projects, and foster immersive experiences aligned with educational objectives. These practices illustrate both the opportunities and the challenges of integrating AI into virtual education, while also providing suggestions for the University of El Salvador and the specialization program.

Finally, the report aims to demonstrate how AI can transform teaching and learning, enabling students not only to acquire knowledge but also to apply critical thinking and problem-solving in meaningful contexts. The following sections present the study's objectives, the theoretical framework, an overview of the activities carried out in each module, and the main achievements accomplished during the course.

II. Objectives

General objective:

- To evaluate the role of artificial intelligence in enhancing students' critical thinking and problem-solving skills, analyzing its applications, benefits, challenges, and potential to transform teaching and learning practices in virtual educational environments.

Specific Objectives

- To present an overview of the contents covered and the activities conducted throughout the specialization course that involved AI tools and digital platforms.
- To examine in detail how artificial intelligence can be used to design interactive learning activities that foster critical thinking and problem-solving skills.
- To identify the practical applications of AI in creating educational resources, interactive exercises, and multimedia projects that encourage analytical and reasoning abilities in students.
- To evaluate the benefits and limitations of integrating AI into teaching practices, highlighting its influence on student engagement and skill development.

III.Theoretical Framework

“How AI Can Help Students Develop Skills such as Critical Thinking and Problem Solving”.

Introduction: Artificial Intelligence in Recent Years

In recent years, Artificial Intelligence (AI) has evolved from being a futuristic concept to becoming an essential part of everyday life. Advances in machine learning, natural language processing, and robotics have made AI systems more powerful, accessible, and adaptable across different fields. From personal assistants like Siri and Alexa to recommendation systems on Netflix and Amazon, AI now shapes the way people communicate, work, and make decisions.

Industries such as healthcare, finance, education, and transportation increasingly adopt AI to improve efficiency, accuracy, and innovation. For example, AI supports doctors in analyzing medical images, assists businesses with predictive analytics, and powers autonomous vehicles. At the same time, ethical concerns about privacy, bias, and the impact on employment have become central to discussions about the future of AI.

Overall, the last decade has demonstrated that AI is not merely a tool for automation but a transformative technology that continues to redefine society, creating both new opportunities and significant challenges.

What is Artificial Intelligence?

Artificial Intelligence (AI) is broadly defined as the ability of machines to perform tasks that require human-like intelligence, such as reasoning, learning, and adapting (Russell & Norvig, 2021). In education, AI is not only a tool for automating tasks but also a catalyst for developing essential 21st-century skills.

Research shows that AI-powered platforms can promote critical thinking by presenting adaptive challenges, personalized feedback, and simulations that require decision-making and reflection (Holmes et al., 2019). Similarly, problem-solving skills are strengthened when students use AI-driven tools that model real-world scenarios, requiring them to analyze situations, test solutions, and adapt their strategies. In other words, AI can act as a learning partner: rather than providing students with all the answers, it offers challenges and feedback that push them to think critically, make connections, and solve problems independently.

The development of critical thinking and problem-solving is essential for students in the 21st century, as these competencies allow them to navigate complex academic and real-world challenges. Traditional educational approaches, while effective in transmitting knowledge, often lack the personalization and immediate feedback mechanisms necessary for enhancing higher-order cognitive skills. In this context, AI has emerged as a transformative educational tool capable of providing adaptive, interactive, and personalized learning experiences.

This theoretical framework is grounded in constructivist learning theory (Piaget, 1972; Vygotsky, 1978) and problem-based learning approaches (Barrows, 1986), which emphasize active engagement, reflective thinking, and autonomous problem-solving. Integrating AI

within these theoretical foundations provides a structured approach to examining how technology can foster critical thinking and problem-solving capabilities among students.

Critical Thinking and Problem-Solving in Education

Critical thinking is defined as "purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference" (Facione, 2015, p. 21). Ennis (2018) further emphasizes that it involves the ability to think clearly and rationally about what to believe or do. Problem-solving, on the other hand, refers to the process of identifying a problem, generating solutions, evaluating alternatives, and implementing the most effective approach (Jonassen, 2011). Both skills are essential for academic success, employability, and lifelong learning.

In education, fostering these skills requires more than transmitting knowledge; it involves providing opportunities for inquiry, analysis, reflection, and decision-making. Virtual education, in particular, demands innovative approaches to keep students engaged and intellectually challenged. According to Anderson (2008), effective online learning must ensure cognitive presence, enabling students to construct meaning through sustained communication and problem-oriented tasks.

AI tools present new opportunities to integrate such approaches at scale. Adaptive learning systems can provide customized tasks aligned with students' levels, while AI-powered tutors deliver instant feedback to guide learners in evaluating their reasoning processes. This aligns with constructivist perspectives, which stress that knowledge is built through active participation, collaboration, and interaction with meaningful tasks (Vygotsky, 1978).

The Role of AI in Education: An Overview

Artificial Intelligence in Education (AIEd) refers to the use of machine learning, natural language processing, and intelligent algorithms to support teaching and learning (Luckin et al., 2016). AIEd tools can analyze large sets of student data to identify learning patterns, predict difficulties, and recommend tailored interventions.

Over the past decade, AI has been integrated into multiple educational platforms. Examples include intelligent tutoring systems such as Carnegie Learning's MATHia, learning analytics dashboards like Civitas, and adaptive language learning apps such as Duolingo. These platforms exemplify how AI enhances instructional design through real-time monitoring and individualized support (Chen et al., 2020).

In specialization courses, AI tools have been applied to design interactive activities, provide automated assessments, and encourage collaboration in virtual environments. For instance, AI-enabled platforms can facilitate peer evaluation, guiding learners through structured rubrics while reducing instructor workload. Such practices align with the first specific objective of this study: to present an overview of the contents covered and the activities conducted with AI tools and digital platforms.

Overall, AI in education does not merely replicate traditional teaching methods in digital form; instead, it redefines instructional processes by enabling scalability, personalization, and engagement in ways previously unattainable.

AI for Designing Interactive Learning Activities

One of the most significant contributions of AI in education lies in its ability to design interactive learning activities that foster higher-order thinking. Gamified systems, adaptive quizzes, and AI-powered simulations immerse students in problem-based scenarios that require them to analyze information, make decisions, and evaluate outcomes (Sailer & Homner, 2020).

Chatbots, for example, can act as conversational partners, posing open-ended questions that encourage reflection and reasoning. Similarly, intelligent tutoring systems can adopt the Socratic method by asking guiding questions that stimulate inquiry. According to Aleven et al. (2016), these systems provide “scaffolding” that supports learners as they progress from basic comprehension to complex problem-solving.

Moreover, AI facilitates iterative feedback loops that are critical for skill development. Unlike traditional assessments that provide feedback only after completion, AI-based tools deliver immediate suggestions, allowing students to correct misconceptions and refine strategies in real time. This reflects the second specific objective of this study: to examine how AI can design interactive activities that foster critical thinking and problem-solving.

In virtual education, where isolation and passivity are common challenges, AI-based interactive activities can significantly increase engagement and cognitive presence, leading to deeper learning experiences.

Practical Applications of AI in Educational Resources

AI has enabled the creation of diverse educational resources designed to cultivate analytical and reasoning skills. Adaptive quizzes powered by machine learning adjust difficulty based on students' responses, ensuring continuous challenge at appropriate levels. Similarly, AI generates personalized study plans, recommending resources and exercises tailored to individual needs (Holmes et al., 2021).

Multimedia projects supported by AI tools also play an important role. Generative AI platforms help students develop visualizations, simulations, and presentations that integrate multiple sources of information. According to Chen et al. (2020), these applications foster creativity and encourage knowledge synthesis across modalities. Furthermore, natural language processing tools analyze student writing, offering suggestions for clarity, coherence, and argumentation. Platforms like Grammarly or Turnitin's Draft Coach exemplify how AI supports the development of critical writing skills, which are directly linked to reasoning and problem-solving.

These applications align with the third specific objective of this study: to identify practical applications of AI that strengthen analytical and reasoning abilities. By integrating AI-based educational resources, educators can provide students with diverse opportunities to apply critical thinking in meaningful and authentic contexts.

Benefits and Limitations of AI Integration

The integration of AI into teaching practices offers multiple benefits. First, AI promotes personalization by adapting content and pace to students' needs, thereby increasing

motivation and persistence (Zawacki-Richter et al., 2019). Second, it enhances engagement through interactive tasks and immediate feedback, crucial for sustaining attention in virtual environments. Third, AI reduces administrative burdens on teachers, allowing them to focus on more complex pedagogical responsibilities (Luckin et al., 2016).

Nonetheless, limitations must also be recognized. Data privacy is a major concern, as AI systems require large amounts of personal information to operate effectively (Selwyn, 2019). Algorithmic bias is another issue, as it can reinforce inequalities if left unaddressed. Additionally, there is the risk of over-reliance on technology, where students and teachers may prioritize automated solutions over human judgment.

Educators must therefore critically evaluate AI tools, ensuring alignment with pedagogical goals and ethical principles. As Selwyn (2019) argues, technology should not replace teachers but rather augment their capacity to support learning. This reflects the fourth specific objective of this study: to evaluate the benefits and limitations of AI in teaching, highlighting its impact on engagement and skill development.

Implications for Virtual Education and Future Directions

The future of education will likely see AI integrated into nearly every aspect of teaching and learning, from curriculum design to assessment and feedback. In virtual environments, AI provides scalable solutions for large groups of learners while maintaining individualized attention. However, the human role of teachers remains irreplaceable, as they provide emotional support, mentorship, and ethical guidance that AI cannot replicate.

Future research should focus on creating transparent AI systems that mitigate bias, protect privacy, and promote equity in education. Likewise, educators must be trained to effectively integrate AI into their practice, ensuring that these tools enhance rather than replace pedagogical strategies (Holmes et al., 2021).

In summary, the theoretical framework highlights the strong potential of AI (Artificial Intelligence) to enhance students' critical thinking and problem-solving skills in online learning contexts. By promoting interactivity, enabling personalized resources, and delivering immediate feedback, AI enhances student engagement and analytical capacity.

However, its integration raises important concerns, including ethical dilemmas, privacy risks, and the danger of over-reliance on digital tools. AI should be viewed as a complement to human teaching, not a replacement. Rooted in the theoretical perspectives discussed, this framework supports the investigation into how AI can reshape education. With a balance between innovation and ethical responsibility, AI has the capacity to redefine both pedagogy and andragogy, preparing learners for the complex challenges ahead.

IV. Description of Activities

Module I: Online Foreign Language Teaching

The development of Module I, Online Foreign Language Teaching, was organized progressively over eight weeks, combining theoretical foundations with practical applications. Each stage of the module was designed to provide participants with a gradual understanding of how digital tools and pedagogical strategies can work together to create effective learning environments. The activities included the study of learning theories, exploration of online teaching modalities, practice with learning management systems, and the use of videoconferencing platforms. This structure allowed participants to connect concepts with practice and to reflect on the teacher's role in guiding students through technology-enhanced education.

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Week 1 and 2

The first two weeks of the module were dedicated to understanding the foundations of learning theories and the distinction between synchronous and asynchronous education. In week one, participants explored behaviorism, constructivism, and connectivism, identifying how each theory provides different approaches to language learning in virtual contexts. This knowledge emphasized that online education is not only about the use of technology, but also about selecting strategies that genuinely foster skill development. In week two, attention was

directed toward synchronous and asynchronous methods with advantages and disadvantages. Synchronous learning highlighted the benefits of real-time interaction through tools such as Zoom, Google Meet, or Microsoft Teams, while asynchronous learning offered flexibility with pre-recorded videos, readings, and digital exercises. Together, these approaches were presented as complementary, supporting varied learning styles and promoting autonomy.

Week 3 and 4

Weeks three and four focused on the introduction and deeper analysis of Learning Management Systems (LMS). First, participants learned the basic functions of these platforms, such as organizing resources, tracking student progress, and providing timely feedback. Then, they created an infographic that summarized the main advantages of LMS, allowing them to develop both creativity and the ability to synthesize information into a visual format. During these weeks, participants also discussed the challenges of online teaching, including issues like limited access to technology or the risk of student isolation, as well as the opportunities, such as greater flexibility, the use of multimedia resources, and the growing incorporation of artificial intelligence to personalize learning.

Week 5 and 6

During weeks five and six, the practical application of knowledge took priority. Participants explored the use of Google Classroom as a common LMS tool and created their own accounts to practice. They designed a model class that included a variety of activities, resources, and instructions. This practice allowed them to experience how to manage a virtual classroom, how to maintain organization, and how to ensure clarity in communication. These activities underlined the importance of accessibility, variety, and clear structure to support student engagement in digital environments.

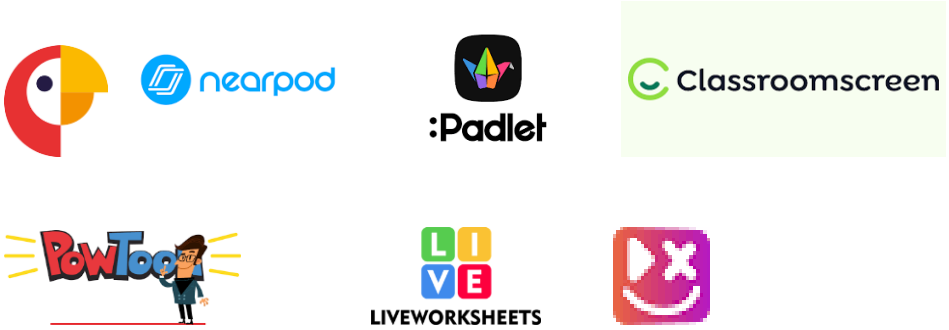
Week 7 and 8

Finally, weeks seven and eight focused on platforms for videoconferencing. Participants explored the main features of Microsoft Teams and Google Meet, and they later applied this knowledge by conducting a class presentation using these tools. This activity reinforced the importance of interaction in real time and demonstrated how digital tools can be adapted to create dynamic lessons. It also highlighted the teacher's role as a facilitator who ensures that technology is used ethically and effectively, providing continuous guidance throughout the learning process.

In conclusion, this module offered both theoretical foundations and practical experiences for online teaching of foreign languages. From the study of learning theories to the application of digital platforms such as Google Classroom and Google Meet, participants developed essential skills to create meaningful, organized, and student-centered virtual environments. The balance between pedagogy and technology was emphasized as a key element for successful online education**.**

Module II: "Educational Applications for Learning a Foreign Language"

This module emphasized both the theoretical foundations and the practical use of digital resources for teaching and learning a foreign language in an online environment. A variety of tools were explored to enhance instruction and student engagement, including Narakeet, Liveworksheets, Powtoon, Nearpod, Padlet, Classroomscreen and Delightex. Each of these applications provided unique opportunities for integrating interactive, multimedia, and collaborative elements into the virtual classroom.



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Week 1 and 2

The professor began the session by outlining her agenda, clearly presenting the objectives to the class. She then introduced the digital tool that students would use to design an interactive worksheet, providing a brief demonstration of its main features and potential applications in educational settings. This introduction helped participants understand not only the technical aspects of the tool but also its relevance for enhancing teaching and learning experiences. During the class, participants explored the platform's functionalities through guided exercises. They experimented with creating different types of interactive activities, such as

matching tasks, fill-in-the-blank questions, and multiple-choice exercises, all designed to foster active student participation and provide immediate feedback.

As an assignment, participants were asked to create a tutorial video that explained, step by step, how to design Liveworksheets. This task encouraged them to keep updating their knowledge. The activity proved to be highly effective, as students not only gained confidence in using the tool but also produced their own interactive learning materials. The professor also emphasized how this tool not only saves time for teachers but also motivates students by making practice more dynamic. For instance, vocabulary practice or grammar drills can be completed in a more enjoyable and interactive manner.

Week 3 and 4

This week, the professor introduces a variety of innovative educational tools and resources, with a particular emphasis on exploring generative artificial intelligence and its applications in education. Participants will engage in hands-on activities to better understand how AI can be integrated into teaching and learning environments. The session also incorporates the use of digital platforms such as Gamma, Narakeet, and Powtoon, which enable the creation of dynamic and interactive instructional materials. To enhance the learning experience, participants will work with multimedia resources, including videos, web pages, and presentations, acquiring a richer and more engaging approach to present a topic.

As part of the evaluation process, students were required to produce a video presentation in Powtoon that demonstrates the use of AI in education, thereby combining theoretical knowledge with practical application while developing both technological and pedagogical skills.

Week 5 and 6

During the Weeks 5 and 6, the professor centers on the theme of Immersive Learning, emphasizing the integration of technological tools that enhance active participation and meaningful engagement in online educational contexts. During these sessions, participants explored Nearpod and Delightex platforms designed to create interactive lessons and 3D virtual environments, providing learners with opportunities to experience content in dynamic and innovative ways. To enrich these activities, a variety of multimedia resources such as videos, web pages, and presentations were incorporated to diversify input and strengthen comprehension.

Week 7 and 8

In this part of the course, the emphasis was placed on the presentation of educational products created by students, showcasing their ability to integrate technology into meaningful learning experiences. Participants utilized a variety of multimedia resources, including videos, web pages, and presentations, to support and enrich their demonstrations. Guided by the focus was on both the technical quality of the projects and their pedagogical value in an online learning context. As the culminating activity, students were required to design and present a project using Delightex, delivering a live demonstration of their 3D interactive lesson. This task allowed them to apply the knowledge and skills developed throughout the course, combining creativity, technological competence, and instructional design principles, practicing language structures in a playful and interactive way.

Module III: "Design of Didactic Materials for Virtual Environments"

The third module of the specialization courses last 8 weeks. During this module, students had the opportunity to study and explore 5 web tools for designing educational materials, such as Adobe Podcast, SoundCloud, Genially, Google Sites, and Google Slides.

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Week 1 and 2

In the course's first class, the teacher gave an introduction to all the tasks that were scheduled for the module. Additionally, the basics of Educational Multimedia Resources were thoroughly covered. Using Google Sites, students chose subjects for website development in groups of three or four. Lastly, they collaborated with their classmates in groups to finish the assignment and create a Google Slide presentation with integrated audio.

The second session covered podcasting and audio formats. The instructor showed videos and lessons on how to utilize Adobe Podcast and the organizations then resumed working on their prior task of recording audio on SoundCloud by inputting it into their Google Slides presentations using their mobile devices. Next, they gave their presentations and got

personalized comments. Afterwards, all presentations were given. Once finished, the course went on to discuss the benefits of podcasting in education, backed by illustrations and podcast lessons on how to make one. And last but not least, the rules for the first evaluated assignment were laid out. The task that week was to make a podcast using Adobe Podcast and SoundCloud

Week 3 and 4

During the third week of the program, the tutor introduced students to Genially as a creative platform for producing interactive images. The instructor demonstrated practical examples and shared video tutorials, guiding learners step by step through the process of building visuals that combine interactivity with clear communication when teaching and learning. During the session, students worked on developing visual resources that combine interactivity with clear communication to support teaching and learning processes. Detailed instructions were provided for the assigned tasks, which included designing an interactive image using the Genially platform, applying principles of creativity and visual organization, and using accurate typography in content design. Additionally, students were required to complete a written report addressing the three main modules of the program. By the end of the week, participants had begun creating their own interactive visuals, actively integrating both technical and pedagogical principles.

The fourth week shifted the focus toward presentation design. The educator emphasized the importance of selecting appropriate colors, background, and fonts to create visually engaging and accessible slides. The session began with a video on color theory, followed by an instructor led presentation on typography, which was reinforced with an explanatory video highlighting how font choices influence tone and readability. Students then watched a tutorial

on Google Slides and practiced individually by creating their own presentation. They incorporated elements such as images, text, color, and background to apply what they have learned.

Finally, selected students asked some questions to the instructor during the session to clarify any doubt about the written report and receive constructive feedback. In parallel, participants continued developing the draft of their written report, integrating all the activities and tools used during the three modules of the specialization.

Week 5 and 6

During the fifth week, the professor introduced the class with a new tool to design photos called Photofunia, a photo editing tool that allowed users to design their own creative images including effects on it. Following the demonstration by the teacher, students were given time to explore with the platform. Several minutes later, students presented their results. The sixth week, the instructor then transitioned to Google Sites, presenting a tutorial that outlined its main functions and potential applications in educational contexts. Students were engaged in small groups to design and build a website using the tool with a general topic, which they later presented to the class. To wrap up the session, the professor displayed examples and explained the steps to be followed for the development of their group projects.

Week 7 and 8

In the seventh week, the professor explained the fundamentals of video production, providing examples of video editors. Students after had a brief practice session with the editors. During this week students worked on editing educational videos to complete the video production task.

Finally, during the eighth week, the professor introduced key aspects of video production, including how to record effectively with a mobile phone, using the tool Google Vids. On the other hand, students had completed and submitted their final written report for the current specialization course, which covered the 3 modules studied in online classes. In addition, as part of the final course, they presented their final project about the Google Site connected to Google Classroom in a live defense session as a final task of the third module.

V. Achievements

Over the three modules, participants developed solid competencies in integrating technology into foreign language teaching and learning. The combination of theory and practice provided opportunities to explore new tools, design meaningful activities, and reflect on their pedagogical applications. The following achievements highlight the main outcomes of the course:

1. **Management of Virtual Classrooms**

   Students learned how to create and organize classes in Google Classroom, including setting up assignments, sharing multimedia resources, and maintaining communication through discussion forums.

2. **Exploration of Learning Theories**

   Participants gained a deeper understanding of learning theories and their application in online education. This knowledge guided the design of activities aligned with the student's cognitive and social development.

3. **Integration of Interactive Tools**

   Students became proficient in using platforms such as Liveworksheets, Nearpod, and Padlet to design interactive exercises. These tools support active learning through immediate feedback, gamification, and collaboration.

4. **Application of Artificial Intelligence Tools**

   The team explored AI based tools such as Narakeet and Gamma, experimenting with innovative ways to create content and enhance student engagement in virtual environments.

5. **Production of Digital Resources**

   Participants developed podcasts, videos, and interactive presentations using tools like Adobe Podcast, SoundCloud, and Powtoon. These resources encourage creativity while diversifying instructional strategies.

6. **Design of Infographics and Interactive Images**

   Students created infographics and interactive images with Genially to summarize concepts visually. This task improved digital literacy and strengthened skills in visual communication.

7. **Development of 3D Virtual Lessons**

   Through Delightex, students designed immersive 3D learning environments. These projects helped students be creative while promoting problem solving.

8. **Creation of Educational websites**

   Participants learned how to design educational websites using Google Sites, integrating multimedia content and linking them to Google Classroom for seamless access.

9. **Adaptation of Materials for Different Audiences**

   Students reflected on the importance of tailoring digital resources for children, adolescents, or adults, ensuring that teaching materials were age appropriate and pedagogically effective.

In conclusion, the achievement of the three modules reflects not only technical proficiency in using digital tools but also growth in pedagogical awareness, and creativity. Students demonstrated the ability to integrate technology meaningfully into language education, equipping them with transferable skills for both academic and professional contexts.

VI. Conclusions

1. **Artificial Intelligence as a Catalyst for critical thinking and problem solving**

   The analysis carried out throughout this report confirms that artificial intelligence is not only technological innovation but also a catalyst for developing essential 21st century skills. AI provides students with adaptive tasks, immediate feedback, and simulations that require them to analyze, evaluate, and design solutions, instead of merely memorizing information. Thus, this dynamic learning process fosters critical thinking, reflective judgment, and autonomy in the learning process, elements that are fundamental for academic success and lifelong learning.

2. **Practical integration of tools into virtual learning environments**

   The activities completed in the specialization course demonstrated that digital platforms such as Genially, Nearpod, Padlet, Powtoon, and Google Slide can transform the way of learning, transforming the classroom experience into an interactive and student-centered environment. Each tool introduced not only served to strengthen technical skills but also to encourage creativity, collaboration, and problem solving in practice. These experiential learning validated that the use of technology enhances meaningful learning.

3. **Pedagogical guidance as the foundation for technological integration**

   The experience during the modules made clear that technology, no matter how advanced, cannot replace the central role of the teacher. The professor´s continuous guidance in demonstrating the tools, offering tutorial videos, and scaffolding activities

emphasized that meaningful learning depends on pedagogy supported by technology. Thus, one of the main conclusions according to technology and teachers is that teachers must remain the facilitators who ensure that digital resources are used ethically, creatively, and in alignment with learning objectives.

4. AI prompting and student engagement

A significant finding of this research is the role of AI prompting in promoting student engagement. By teaching learners how to design open ended, precise, and interactive prompts, educators guide them toward more analytical and critical use of AI tools. This approach encourages learners to question, compare perspectives, and refine their problem-solving strategies, while also addressing important ethical issues such as bias, transparency, and over reliance on automated systems. In this way, AI shifts from being a simple shortcut to becoming a valuable partner at any time that stimulates deeper intellectual growth.

5. Design and creation of didactic resources as professional training

The module dedicated to creating educational materials revealed the importance of training future educators not only as users but also as designers of technological resources. The production of podcasts, interactive images, and multimedia presentations highlighted the need for teachers to master both technical and creative skills. This capacity to design, adapt, and innovate with digital tools directly strengthens problem solving abilities and ensures that students can face real world educational challenges with adaptability and confidence.

6. The transformative potential of AI for 21st century education

Ultimately, this report shows that the integration of Artificial Intelligence and digital tools in educational contexts is more than a trend; it is a necessity to prepare learners for the demands of contemporary society. By combining traditional teaching with AI driven methodologies, students develop critical thinking skills, creativity, collaboration, and problem-solving skills that transcend the classroom and are vital for their professional and personal lives. In this way, AI becomes a bridge between technological progress and human development, equipping students to respond ethically and effectively to the challenges of the future.

VII. Recommendations

- The University of El Salvador should create a manual that explains how students can use AI responsibly. The guide should include rules for citing AI, limits for its use in academic tasks, and strategies to avoid plagiarism and over-reliance.

- The University of El Salvador and The Foreign Language Department could develop a shared repository where teachers upload and exchange AI-created teaching resources (interactive quizzes, infographics, lesson plans). This bank would ensure that all teachers have access to quality materials, save preparation time, and encourage innovation across different subjects.

- It is recommended to include additional spaces for hands-on practice where participants can experiment directly with AI tools, create materials, and test them with real students. Also, collaborative projects between teachers from different areas could be promoted, so they exchange experiences and apply AI in diverse educational contexts. This would make the course more dynamic, practical, and directly connected to classroom needs.

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- Genially Official Website. (n.d.). Logo of Genially. https://app.genial.ly/35
- Google Classroom Official Website. (n.d.). Logo of Google Classroom. https://classroom.google.com/
- Google Meet Official Website. (n.d.). Logo of Google Meet. https://meet.google.com
- Google Sites Official Website. (n.d.). Logo of Google Site. https://sites.google.com/
- Liveworksheets Official Website. (n.d.). Logo of Liveworksheets. https://www.liveworksheets.com/
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- Photofunia Official Website. (n.d.). Logo of Photofunia. https://photofunia.com/
- Powtoon Official Website. (n.d.). Logo of Powtoon. https://www.powtoon.com/
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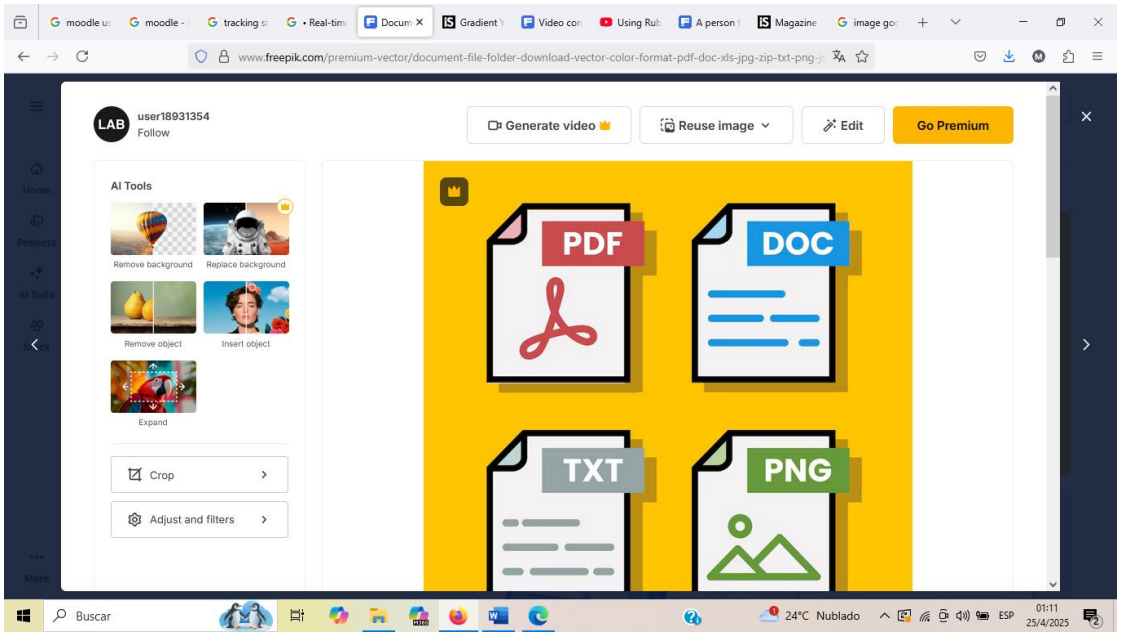
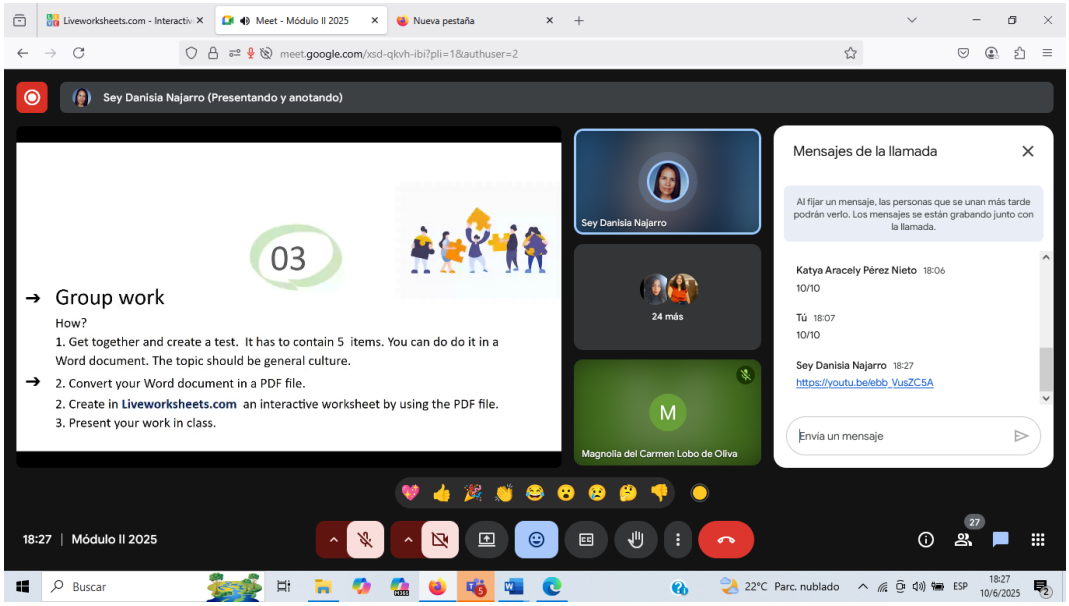
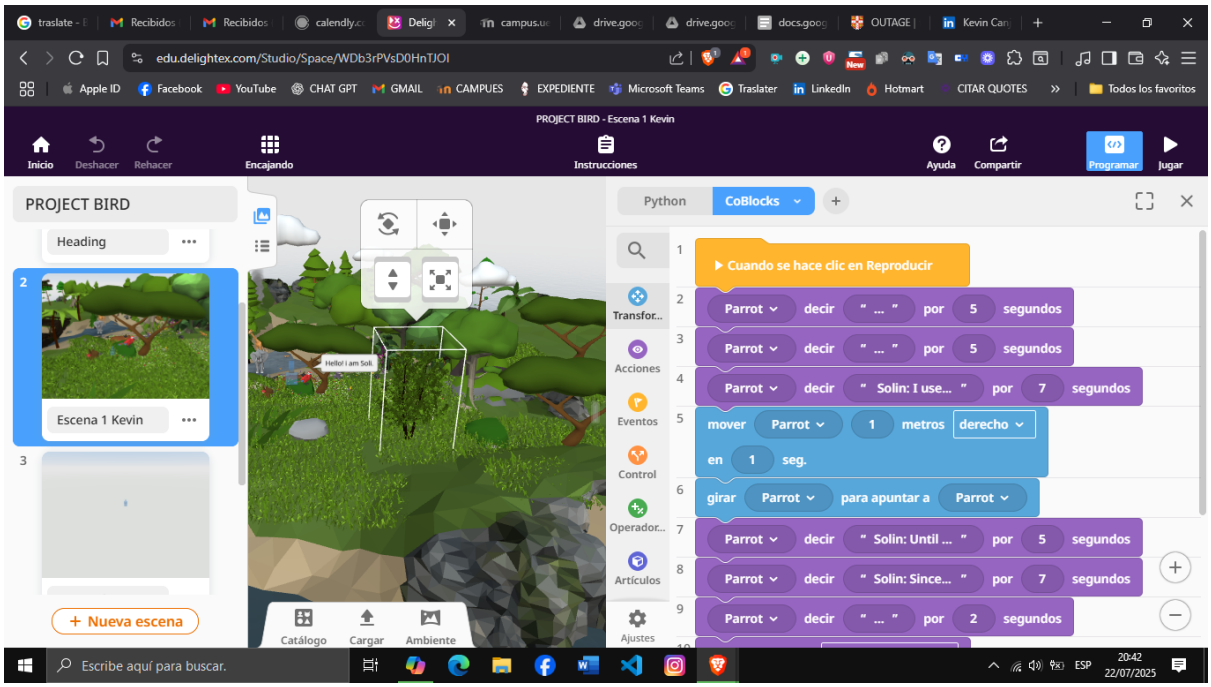
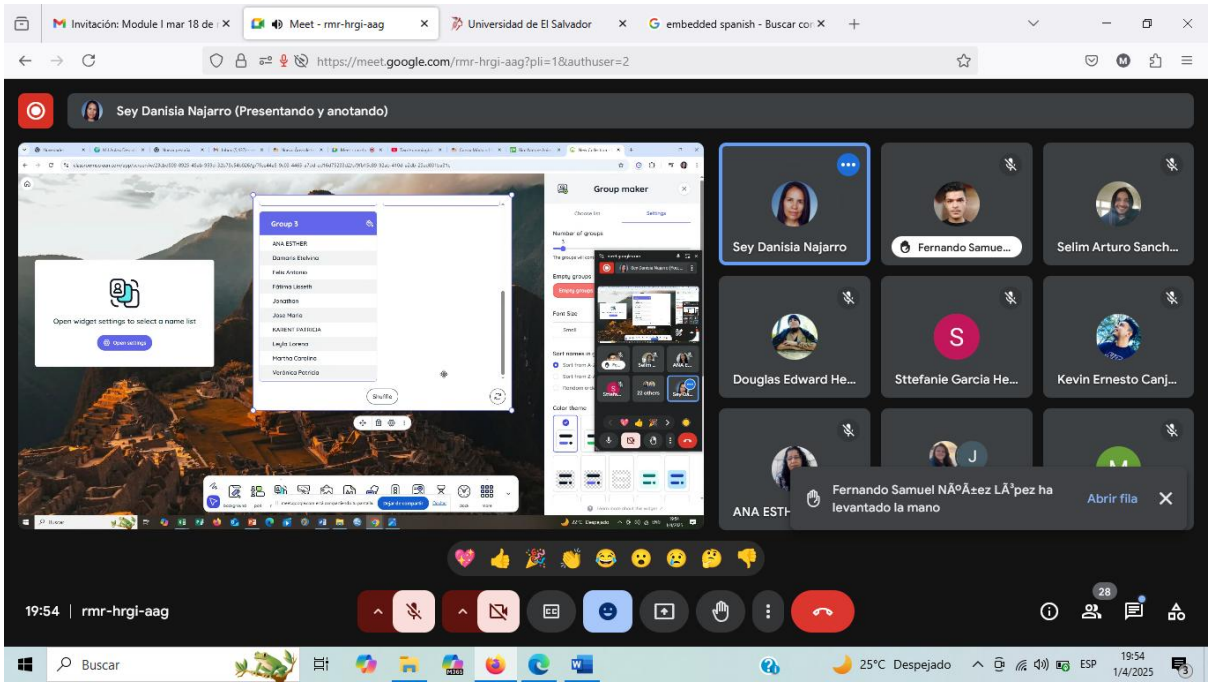
IX. Appendixes Photos, infograms, and programs of the courses.



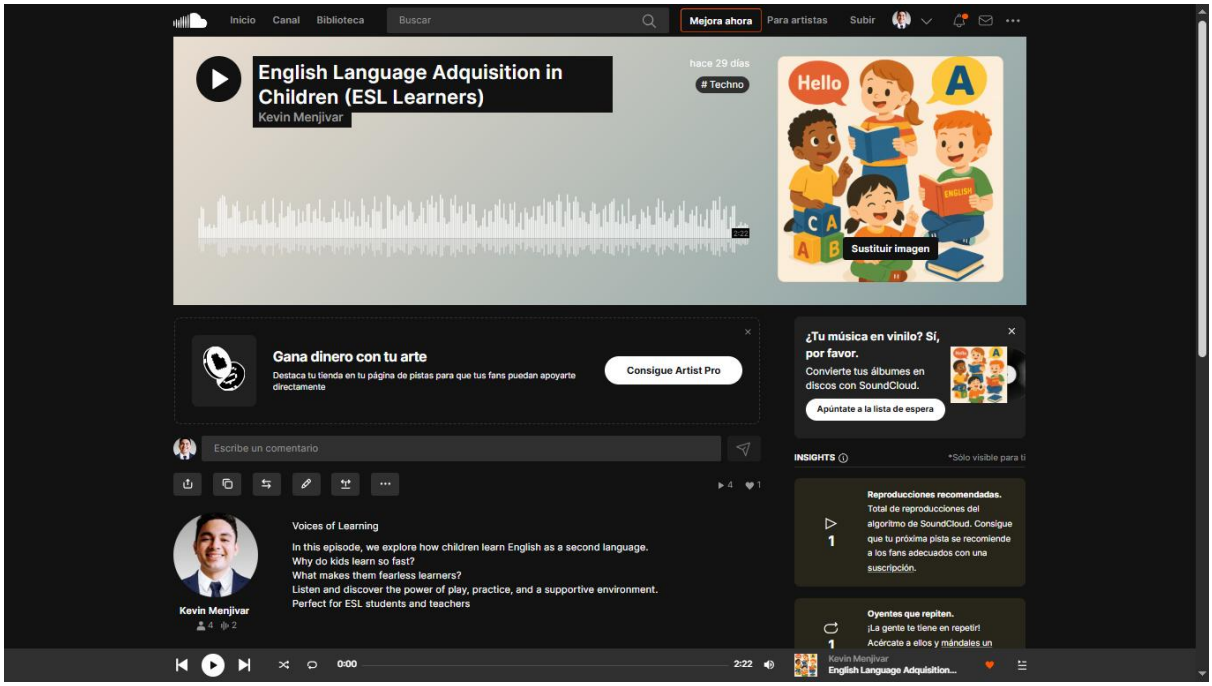


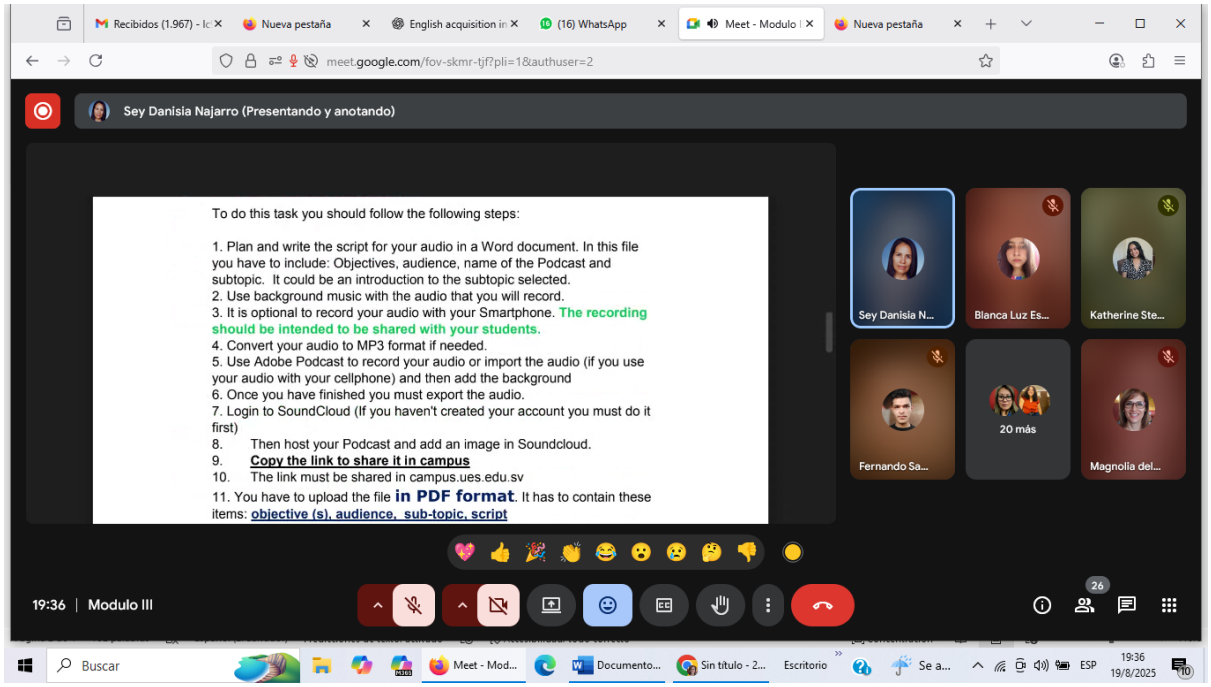

Tienes instaladas extensiones que pueden afectar a la calidad de la llamada
Más información
Cerrar
Para salir de la pantalla completa, mantén presionado Esc
Sey Danisia Najarro (Presentando y anotando)
Course Management
Assessment
Tracking progress
Gradebook
Communication tools
Social connectivity
Security & privacy
Ubiquitous access
Learning Management Systems: An Overview, Fig. 1 LMS feature categories
WHAT IS A LMS (LEARNING MAGAGEMENT SYSTEM)?
Sey Danisia Najarro
Damaris Etelvina S...
Blanca Luz Esquiv...
Jose Maria Arguet...
Yesenia Abigail Sol...
Cesar Gehovany B...
22 más
Kevin Ernesto Can...
18:25 | rmr-hrgi-aag
30

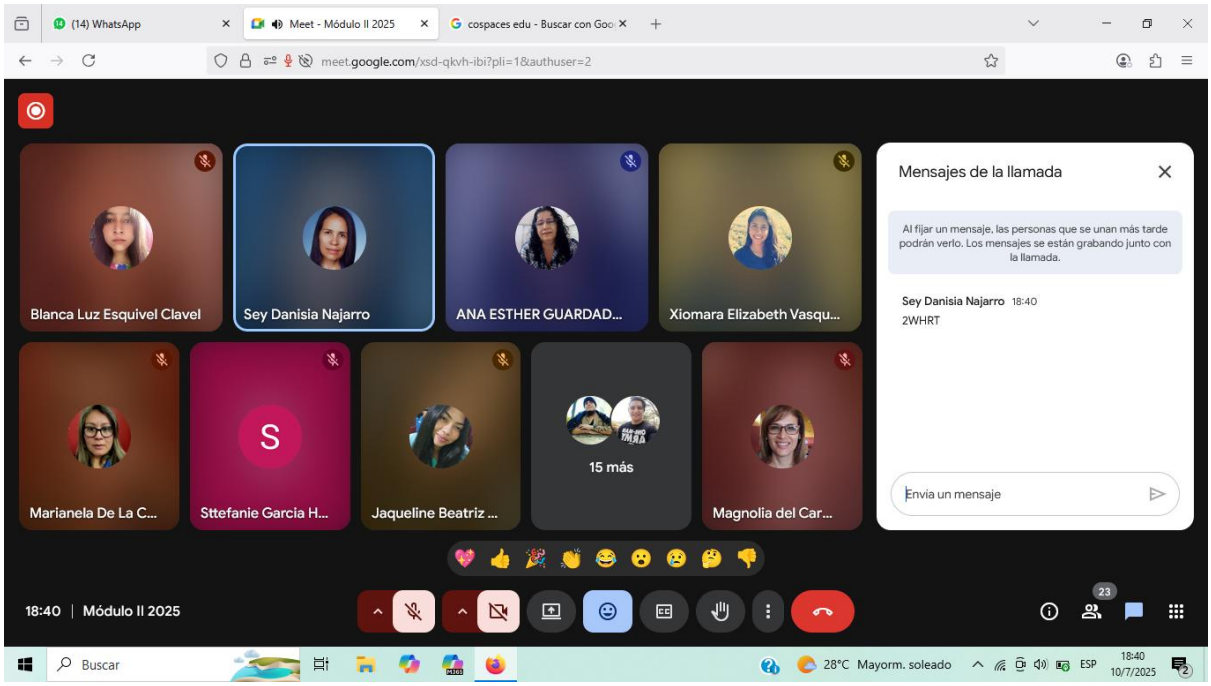

edu.delightex.com/Studio/Space/WDb3rPVsD0HnTJOI
PROJECT BIRD - Escena 1 Kevin
Inicio
Deshacer
Rehacer
Encajando
Instrucciones
Ayuda
Compartir
Programar
Jugar
PROJECT BIRD
Heading
Escena 1 Kevin
+ Nueva escena
Catálogo
Cargar
Ambiente
Python
CoBlocks
Cuando se hace clic en Reproducir
Parrot decir " ... " por 5 segundos
Parrot decir " ... " por 5 segundos
Parrot decir " Solin: I use... " por 7 segundos
mover Parrot 1 metros derecho en 1 seg.
girar Parrot para apuntar a Parrot
Parrot decir " Solin: Until ... " por 5 segundos
Parrot decir " Solin: Since... " por 7 segundos
Parrot decir " ... " por 2 segundos
Transfor...
Acciones
Eventos
Control
Operador...
Artículos
Ajustes
Escribe aquí para buscar.
ESP
20:42
22/07/2025

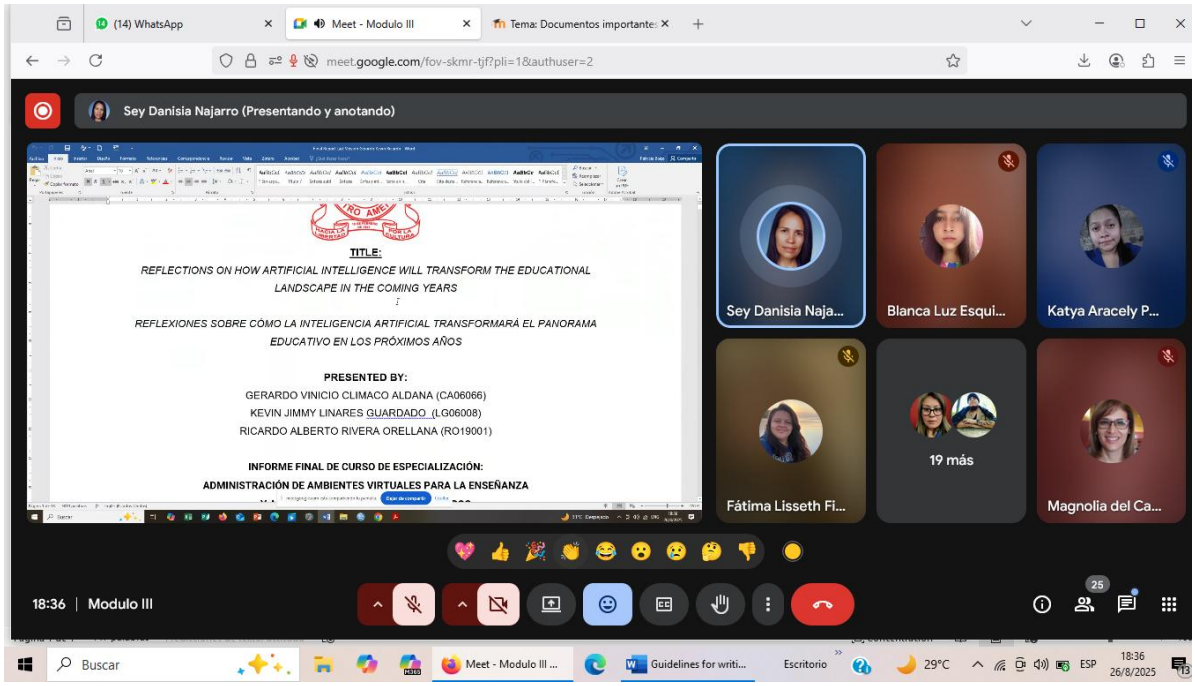

Invitación: Module I mar 18 de
Meet - rmr-hrgi-aag
Universidad de El Salvador
embedded spanish - Buscar con
https://meet.google.com/rmr-hrgi-aag?pli=1&authuser=2
Sey Danisia Najarro (Presentando y anotando)
Group maker
Open widget settings to select a name list
Sey Danisia Najarro
Fernando Samue...
Selim Arturo Sanch...
Douglas Edward He...
Sttefanie Garcia He...
Kevin Ernesto Canj...
ANA ESTH
Fernando Samuel NÃºÃ±ez LÃ³pez ha levantado la mano
Abrir fila
19:54 | rmr-hrgi-aag
Buscar
25°C Despejado
ESP
19:54
1/4/2025

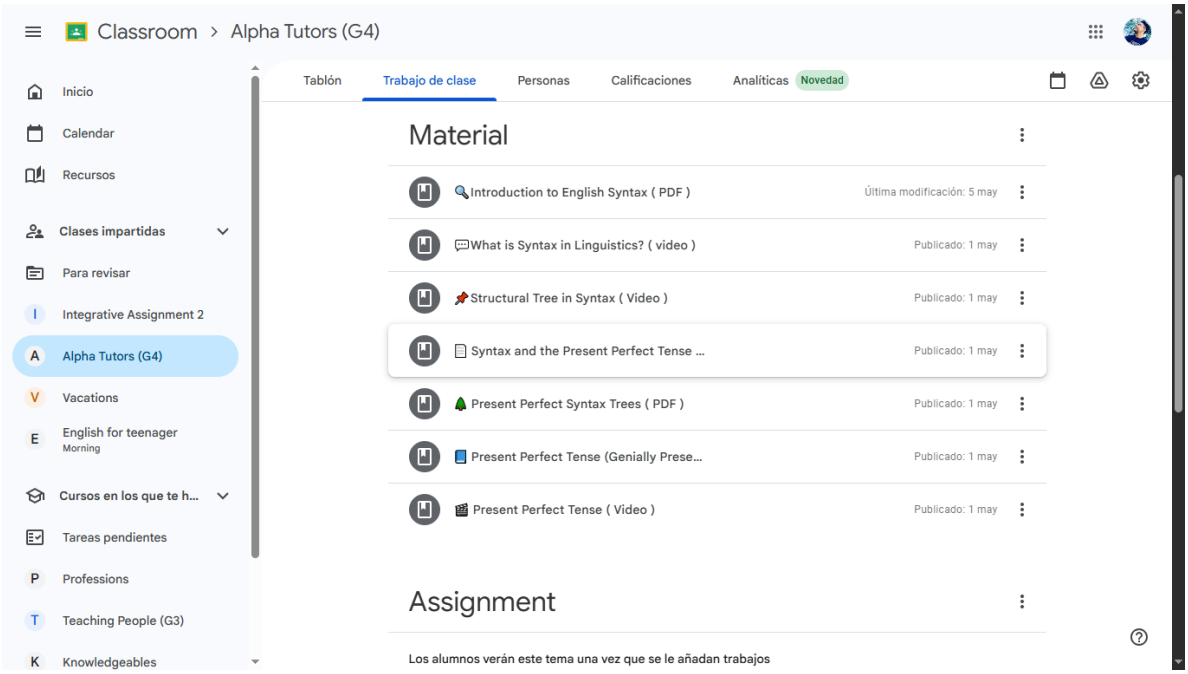

English Language Adqui...
-50% premium
Presentar
Compartir
Texto
Recursos
Elementos interactivos
Preguntas interactivas
Widgets
Insertar
Estilos
Fondo
Páginas
Añadir página
1| Interactive image
2| 2
Lista
Cuadrícula
Etiqueta
Animación
English Language Adqui...in Children (ESL Learners)
KEVIN ERNESTO CANJURA MENJIVAR
Añadir página
100%


Inicio
Canal
Biblioteca
Buscar
Mejora ahora
Para artistas
Subir
English Language Adquisition in Children (ESL Learners)
Kevin Menjivar
hace 29 días
Techno
Hello
Sustituir imagen
Gana dinero con tu arte
Destaca tu tienda en tu página de pistas para que tus fans puedan apoyarte directamente
Consigue Artist Pro
¿Tu música en vinilo? Sí, por favor.
Convierte tus álbumes en discos con SoundCloud.
Apúntate a la lista de espera
Escribe un comentario
INSIGHTS
*Sólo visible para ti
Reproducciones recomendadas.
Total de reproducciones del algoritmo de SoundCloud. Consigue que tu próxima pista se recomiende a los fans adecuados con una suscripción.
Voices of Learning
In this episode, we explore how children learn English as a second language.
Why do kids learn so fast?
What makes them fearless learners?
Listen and discover the power of play, practice, and a supportive environment.
Perfect for ESL students and teachers
Kevin Menjivar
Oyentes que repiten.
¡La gente te tiene en repetir!
Acércate a ellos y mándales un
0:00
2:22
Kevin Menjivar
English Language Adquisition...


Recibidos (1.967) - lc
Nueva pestaña
English acquisition in
(16) WhatsApp
Meet - Modulo I
Nueva pestaña
meet.google.com/fov-skmr-tjf?pli=1&authuser=2
Sey Danisia Najarro (Presentando y anotando)
To do this task you should follow the following steps:
1. Plan and write the script for your audio in a Word document. In this file you have to include: Objectives, audience, name of the Podcast and subtopic. It could be an introduction to the subtopic selected.
2. Use background music with the audio that you will record.
3. It is optional to record your audio with your Smartphone. The recording should be intended to be shared with your students.
4. Convert your audio to MP3 format if needed.
5. Use Adobe Podcast to record your audio or import the audio (if you use your audio with your cellphone) and then add the background
6. Once you have finished you must export the audio.
7. Login to SoundCloud (If you haven't created your account you must do it first)
8. Then host your Podcast and add an image in Soundcloud.
9. Copy the link to share it in campus
10. The link must be shared in campus.ues.edu.sv
11. You have to upload the file in PDF format. It has to contain these items: objective (s), audience, sub-topic, script
Sey Danisia N...
Blanca Luz Es...
Katherine Ste...
Fernando Sa...
20 más
Magnolia del...
19:36 | Modulo III
26
Buscar
Meet - Mod...
Documento...
Sin título - 2...
Escritorio
Se a...
ESP
19:36
19/8/2025

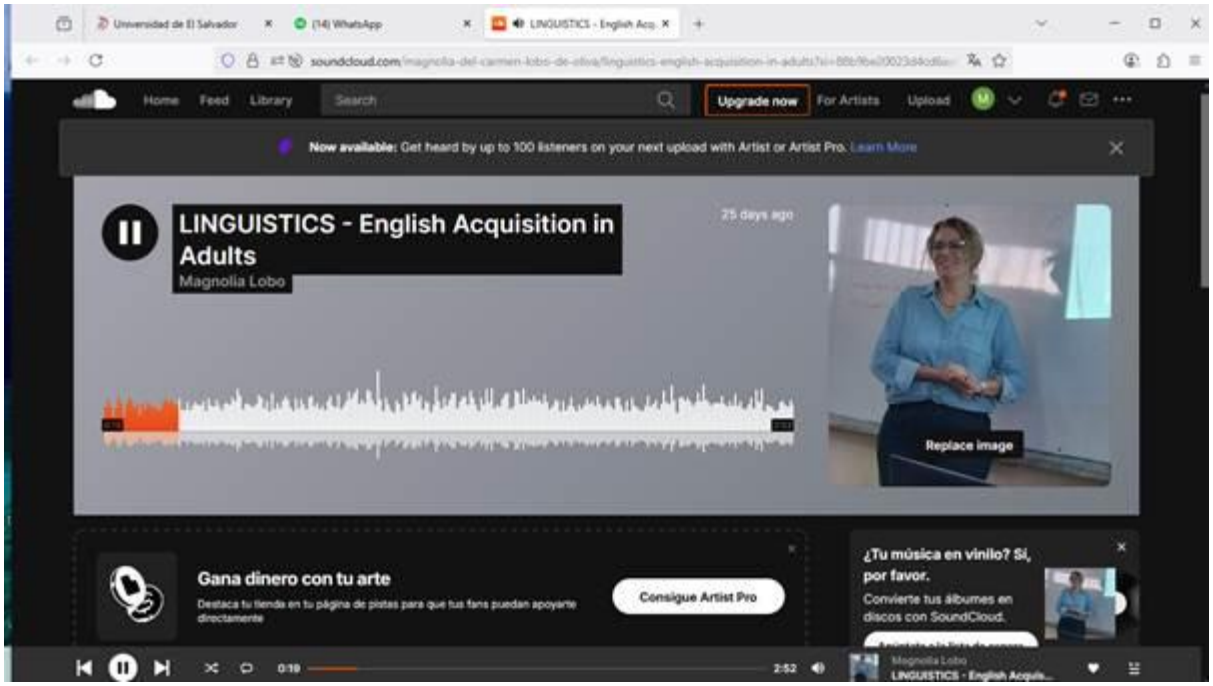

(14) WhatsApp
Meet - Módulo II 2025
meet.google.com/xsd-qkvh-ibi?pli=1&authuser=2
Blanca Luz Esquivel Clavel
Sey Danisia Najarro
ANA ESTHER GUARDAD...
Xiomara Elizabeth Vasqu...
Marianela De La C...
Sttefanie Garcia H...
Jaqueline Beatriz ...
15 más
Magnolia del Car...
Mensajes de la llamada
Al fijar un mensaje, las personas que se unan más tarde podrán verlo. Los mensajes se están grabando junto con la llamada.
Sey Danisia Najarro 18:40
2WHRT
Envía un mensaje
18:40 | Módulo II 2025
Buscar
28°C Mayorm. soleado
ESP
18:40
10/7/2025

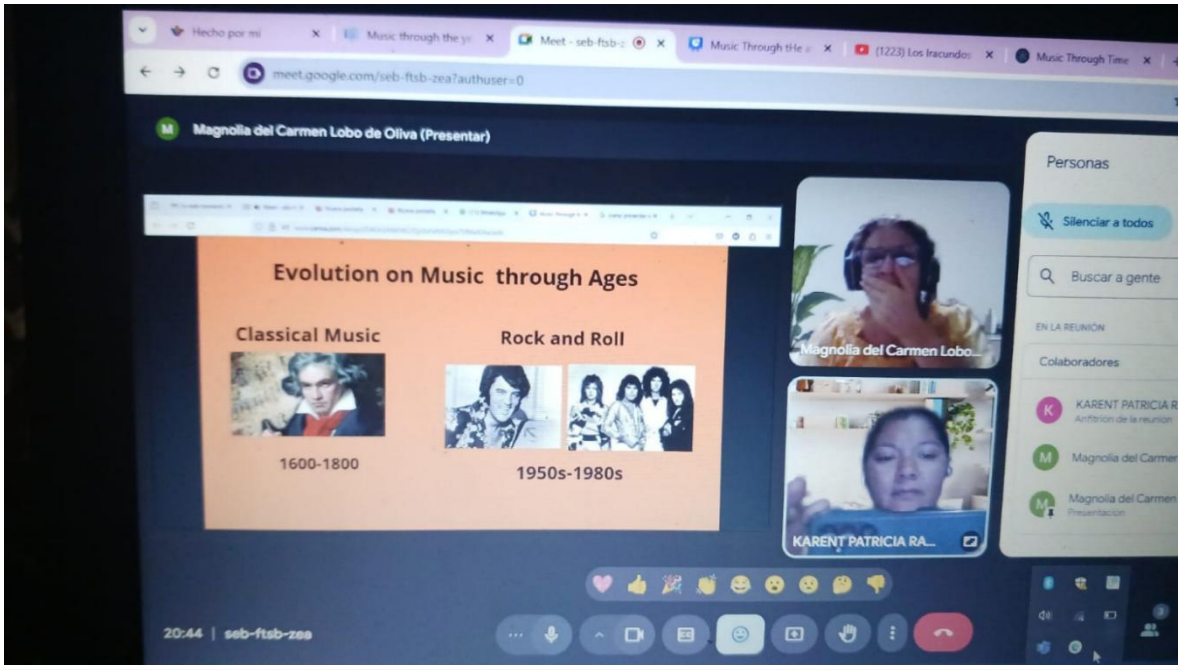

(14) WhatsApp
Meet - Modulo III
Tema: Documentos importante:
meet.google.com/fov-skmr-tjf?pli=1&authuser=2
Sey Danisia Najarro (Presentando y anotando)
TITLE:
REFLECTIONS ON HOW ARTIFICIAL INTELLIGENCE WILL TRANSFORM THE EDUCATIONAL LANDSCAPE IN THE COMING YEARS
REFLEXIONES SOBRE CÓMO LA INTELIGENCIA ARTIFICIAL TRANSFORMARÁ EL PANORAMA EDUCATIVO EN LOS PRÓXIMOS AÑOS
PRESENTED BY:
GERARDO VINICIO CLIMACO ALDANA (CA06066)
KEVIN JIMMY LINARES GUARDADO (LG06008)
RICARDO ALBERTO RIVERA ORELLANA (RO19001)
INFORME FINAL DE CURSO DE ESPECIALIZACIÓN:
ADMINISTRACIÓN DE AMBIENTES VIRTUALES PARA LA ENSEÑANZA
Sey Danisia Naja...
Blanca Luz Esqui...
Katya Aracely P...
Fátima Lisseth Fi...
19 más
Magnolia del Ca...
18:36 | Modulo III
Buscar
Meet - Modulo III ...
Guidelines for writi...
Escritorio
29°C
ESP
18:36
26/8/2025


Classroom > Alpha Tutors (G4)
Inicio
Calendar
Recursos
Clases impartidas
Para revisar
Integrative Assignment 2
Alpha Tutors (G4)
Vacations
English for teenager
Morning
Cursos en los que te h...
Tareas pendientes
Professions
Teaching People (G3)
Knowledgeables
Tablón
Trabajo de clase
Personas
Calificaciones
Analíticas
Novedad
Material
Introduction to English Syntax (PDF)
Última modificación: 5 may
What is Syntax in Linguistics? (video)
Publicado: 1 may
Structural Tree in Syntax (Video)
Publicado: 1 may
Syntax and the Present Perfect Tense ...
Publicado: 1 may
Present Perfect Syntax Trees (PDF)
Publicado: 1 may
Present Perfect Tense (Genially Prese...
Publicado: 1 may
Present Perfect Tense (Video)
Publicado: 1 may
Assignment
Los alumnos verán este tema una vez que se le añadan trabajos


edu.delightex.com/WFV-XFU
"The Bird Who Forgot How to Fly"
Kevin Canjura
Karent Patricia Ramírez
Magnolia Lobo
Buscar
ESP
10:40
19/9/2025


Part I.Ethics and Considerations in the Use of Artificial Intelligence in Education.
I.....the door.
opened
open
opend
Part II: AI-powered Technology Tool for Educators
By: Magnolia del Carmen Lobo
0:39/2:54
CREATED USING
POWTOON
POWTOON

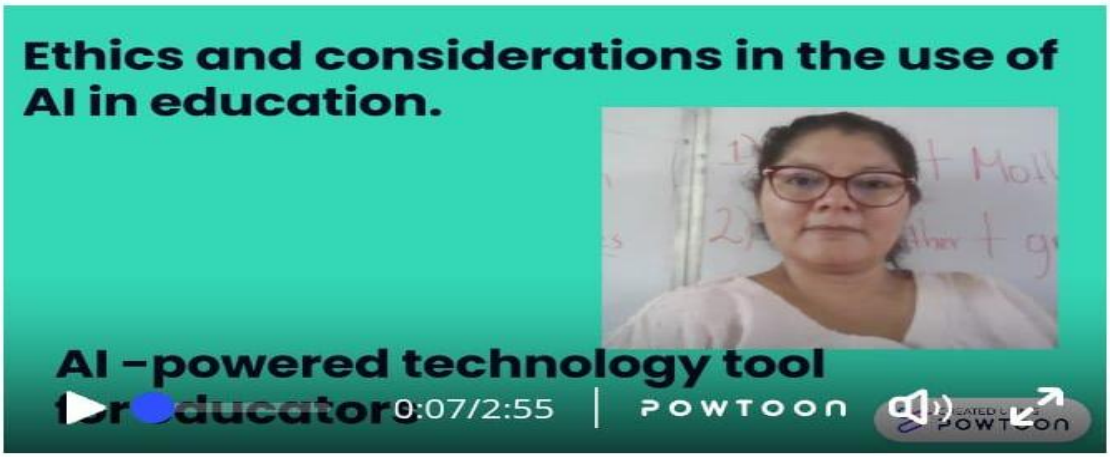

soundcloud.com
Home
Feed
Library
Search
Upgrade now
For Artists
Upload
Now available: Get heard by up to 100 listeners on your next upload with Artist or Artist Pro. Learn More
LINGUISTICS - English Acquisition in Adults
Magnolia Lobo
25 days ago
Replace image
Gana dinero con tu arte
Destaca tu tienda en tu página de pistas para que tus fans puedan apoyarte directamente
Consigue Artist Pro
¿Tu música en vinilo? Sí, por favor.
Convierte tus álbumes en discos con SoundCloud.
0:19
2:52



POWTOON | THE UNIFIED AI VIDEO PLATFORM

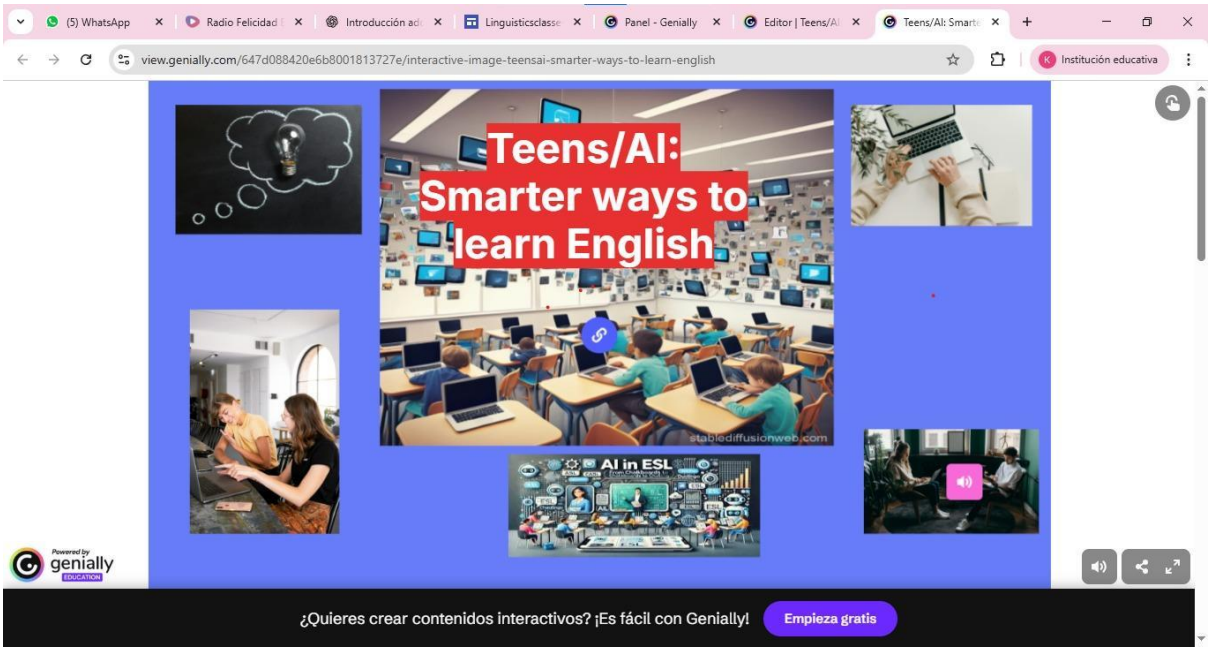
Sign Up

Slideshow Video



AI-powered technology tool for educators..pptx

By rs06011 | Updated: July 7, 2025, 9:29 p.m.


Teens/AI:
Smarter ways to
learn English
AI in ESL
stablediffusionweb.com
Powered by genially EDUCATION
¿Quieres crear contenidos interactivos? ¡Es fácil con Genially!
Empieza gratis