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## **Breaking Boundaries: Boosting a Fourth Grader's Productive English skills with Gamification and Voki in Milagro – Ecuador**

Rompiendo barreras: Impulsando el inglés productivo de un  
estudiante de cuarto grado con gamificación y Voki en Milagro,  
Ecuador

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## **Breaking Boundaries: Boosting a Fourth Grader's Productive English skills with Gamification and Voki in Milagro – Ecuador**

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### **Abstract**


This investigation aims to provide a gamified-tool to develop a connectivist and constructivist teaching and learning, which zeros in on a fourth grader from a public school whose linguistic production will be underscored in detail. The research was qualitative from the outset. Previous to carry out this study case, it was conducted a diagnostic assessment and interview meeting to map out the participants performance's productive abilities. Throughout the experimentation, a dynamic app along with techniques and strategies based on student-centered were applied, taking into account the fourth-grader' poor knowledge of L2. While the analysis of data sources involves observation, field notes, meetings with the participant's and participant's relatives. In the span of putting an ITC tool into practice, linguistic production skyrocketed, enhancing their digital literacy. Therefore, it is posited that e-learning and gamified tools should be designed to assess students' learning to get extraordinary results.

*Keywords:* connectivist-constructivist teaching learning, linguistic production, Information and Technology Communication (ITC) tools, gamified tool, Foreign Language- English (L2)

## Resumen

Esta investigación caracteriza el desarrollo de una herramienta gamificada para promover un enfoque de enseñanza y aprendizaje conectivista y constructivista, centrándose en un estudiante de cuarto grado de una escuela pública, cuyo desempeño lingüístico se analiza en detalle. El estudio adoptó un enfoque cualitativo desde su inicio. Previo a la ejecución del estudio de caso, se realizó una evaluación diagnóstica y una entrevista para evaluar las habilidades productivas del participante. Durante la experimentación, se aplicó una aplicación dinámica, junto con técnicas y estrategias centradas en el estudiante, considerando su escaso dominio del inglés (L2). El análisis de los datos incluyó observaciones, notas de campo y reuniones con el participante y sus familiares. Durante la implementación de la herramienta TIC, la producción lingüística experimentó un crecimiento significativo, generando además un mejoramiento de alfabetización digital. Por lo tanto, se plantea que el e-learning y las herramientas gamificadas deben diseñarse para evaluar el aprendizaje de los estudiantes y así obtener resultados excepcionales.

*Palabras clave:* enseñanza-aprendizaje conectivista-constructivista, producción lingüística, herramientas de Tecnologías de la Información y Comunicación (TIC), herramienta gamificada, Inglés

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## INTRODUCTION

Ecuador is among the countries with the lowest English proficiency levels in Latin America, which highlights the urgent need for more innovative and effective teaching strategies (Orosz, Monzón, & Velasco, 2021). According to Munawarah et al. (2024), productive skills, such as speaking and writing, are essential for expressing ideas, opinions, and interacting in a second language (L2). Therefore, it is crucial to develop them from the early stages of language learning.

In Ecuador's education system, the challenges of improving productive English skills have persisted for many years. Traditional teaching methods, focused on the teacher and based on memorization, have not effectively promoted communicative competence. Orosz, Monzón, and Velasco (2021) point out that although these methods may help manage classroom behavior, they do not encourage students to use the language in real contexts.

This situation becomes even more difficult in public primary schools, where English is not always included in the regular curriculum. As a result, students are exposed to the language very little, which limits the development of their productive skills.

In their study "English as a Foreign Language Instruction in Ecuador," Barre and Villafuerte (2021) mention weaknesses in teacher training and difficulties in applying modern strategies, especially those related to technology. This study connects with our research since we also aim to address these challenges by proposing a different strategy: gamification. This approach may be even more effective if it specifically targets the development of productive skills.

Gamification has proven to be a useful strategy in language learning. Zhanni (2023) found that gamified tools increase students' motivation, interest, and emotional engagement. Similarly, Ruobing and Jingwen (2022) state that gamification makes learning more dynamic and participatory, allowing students to create educational, entertaining, and meaningful content.

Elements such as points, challenges, and interactive activities make the learning process more engaging. According to Zhang and Hasim (2023), gamification increases both intrinsic and extrinsic motivation, promoting real progress in skills such as speaking and writing.

Additionally, this research includes the use of Voki, a technological tool that allows students to create animated avatars to present information. Stanley (2021, as cited in Rahman et al., 2024) states that Voki is aligned with 21st-century educational practices since it facilitates oral and written practice by transforming text into voice and vice versa.

This study is based on constructivist theory, which proposes that learning occurs through experience and interaction with the environment. Vygotsky (as cited in Rohman & Fauziati, 2022) argues that students learn when they solve problems and explore actively. In this context, gamification fits with constructivist principles by allowing students to create, collaborate, and participate actively in the learning process, especially through tools like Voki.

Another key element is motivation. Gardner (as cited in Nurhidayah, 2020) defines it as a complex factor that influences learner behavior. In the case of L2 students, motivation can be decisive in overcoming barriers such as insecurity when communicating in the target language.

This research also considers connectivism, a theory that, according to Siemens (as cited in Alam, 2023), suggests that learning today occurs through connections between people, technologies, and information sources. Gamification and Voki align with this approach because they provide digital environments where students can interact and practice English in authentic and dynamic ways.

This case study is especially relevant in the Ecuadorian educational context, where English proficiency remains low despite the language's importance for global communication and professional opportunities. By focusing on a fourth-grade student, the research aims to promote more effective and engaging teaching methods that can be integrated into school English programs.

Based on the background presented, this study is guided by the following research questions:

- What are the student's experiences with digital tools to foster productive English skills?
- What happens when a strategy based on gamification and the use of the Voki tool is applied in English classes with a fourth-grade student?
- How does the student perceive the integration of gamification and Voki in their English learning process?

The general objective of this study is to understand how the integration of gamification and the Voki tool influences the learning experience and the development of productive English skills in a fourth-grade student from an educational institution in Milagro.

### **METHODOLOGY**

This research paper was grounded in a qualitative investigation. According to Nurdin (2021), qualitative data is defined as a narration that enables researchers to explain the phenomena. In essence, qualitative research is a method valuing human experiences and perspectives so as to get deep insight into how the participants can be perceived by carrying out strategies and techniques based on the student's L2 learning. As such, by applying observation, conducting interviews, and asking questions to the participant (Rohmi and Wahyuni, 2023).

For this case study, the sample consisted of a ten years old fourth grader from Milagro. The fourth grader has difficulties while learning a second language, English, due to the low exposure to the language barrier at his school. His school offer a traditional language teaching curriculum with no use for technology that contribute the low level of his skills. The student also showed a lack of language production for communicative purposes especially in speaking and writing. For these reasons, he is a appropriate sample for the development of this study.

Ethical guidelines were also strictly followed to protect the fourth grader rights and privacy. Before the study, an informed consent paper was obtained from the sample's parents and the teacher. The participant's identity was anonymized, and confidentiality was maintained during all the study, including the interviews from the collected data. Additionally, the study strictly adhered to ethical principles concerning voluntary participation, ensuring that the student could abandon the project at any stage without consequences.

Consequently, the qualitative research depended on the process that the participant performed during the study, as well as all the data collected during the observation while the participant received classes before and after Gamification and Voki by which it assisted to break down the case study fundamentally (Aktaş, 2023).

In this research, the data collection instruments included interviews, class observation, and field notes to analyze the effectiveness of Gamification and Voki on boosting the participant's English productive skills. The following section will describe the data collection tools.

For this research, the investigators applied interviews. According to Jowsey, Deng, & Weller, (2021) interviews are fundamental for researchers to get credibility and validity in the research.

Three semi-structured face-to-face interviews were conducted with the participant, each interview lasted approximately 30 minutes with opened questions.

The three interviews were before, during and after the intervention. The first interview consisted of questions to get overall insights from the sample. The second face-to-face interview was conducted during the intervention of the researchers. Finally, the third one took place at the end of the intervention. The purpose is to expose the feelings and experiences of the fourth grader during the lessons applying Gamification and Voki.

Additionally, the interventions consisted of six 60-minute lessons over three weeks. The first two lessons employed traditional teaching methods, such as board work, notebook exercises, and guided activities. The following two sessions were guiding the learner with Voki to perform simple activities to foster his productive skills. The last two sessions were only with the learner's work, and the researcher taking notes of him manipulating Voki and doing the activities by himself.

Furthermore, direct class observation and field notes were used to collect information from the participant before, during, and after the classes. Denny, & Weckesser, (2022) affirmed that field notes allow the researcher to interpret the data in a better way because they are notes based on direct observation. Thanks to the observation, the researchers took notes to document information from the fourth grader, including physical movements, facial gestures, engagement, attention to the class, facial expressions, participation, and retention.

Consequently, data from interviews, observation, and field notes were analyzed through thematic analysis. The researchers transcribed the interviews and coded the data to identify patterns in student engagement motivation and language production. The study also followed the principle of triangulation, as outlined by Bans-Akutey (2021), to cross-validate findings from different sources (observations, interviews, and field notes), ensuring the credibility and reliability of the results.

Besides, temporary triangulation was applied by the investigators to check the reliability of the data. Temporal triangulation represents the collection of data on the same phenomenon at different moments in time (Arias 2020, as cited in Robles, Maridueña, Villao & Véliz, 2024). The temporary triangulation took place before, during, and after the researchers' intervention, this was to evaluate, compare, and contrast the class results of the first sessions with traditional classes, with those of the others sessions using Voki.

The temporal triangulation in this study was structured into three distinct phases: (1) Pre-intervention, which included diagnostic interviews and observations to understand the student's baseline; (2) During-intervention, in which field notes and ongoing interviews tracked real-time engagement and reactions; and (3) Post-intervention, which included final interviews, analysis of work samples, and concluding observations. Each stage helped to identify evolving patterns in the participant's language output and motivational attitudes. This design strengthened the internal validity of the findings by allowing longitudinal tracking of changes influenced by the intervention.

In this case study, two interview meetings were prominent for breaking down some aspects of the participant whose mother's replies were of a huge help where we could pinpoint some consequences of no English lessons in the school. On the other hand, the questions asked were somewhat personal based on the participant's and his mother's viewpoints of the English language in our globalized world (Ly et al., 2021).

Likewise, the CIPP model was selected for collecting data by which stands for Context, Input, Process, Product by holding into this model, it could be shown how the participant's progress had been doing through before, during, and after stages the lessons were imparted in three weeks (Erdogan & Mede,

2021). Of equal importance, the field notes were remarkably pivotal by providing details evidenced on the three stages glossed over above. The following table will illustrate some essential information about the participant's surrounding.

**Table 1**

*Data collection and analysis*

<b>Activities</b>	<b>Indicators</b>	<b>Resources</b>
A fourth grade student from a public school.	Fourth grader with no knowledge of English at all. Lack of English teachers in the school. Poor fluency in productive skills.	Observation Lesson observation / interview meetings
Role of the participant's relatives.	Supportive family functionality; however, without knowledge of English to foster motivation for learning the L2 so that the participant could output L2 abilities.	Interview meetings / observation

### **L2: Second Language (English)**

Subsequent to the data gathered, the analysis was scrutinized through coding themes to disclose relation categories which assisted with an appropriate understanding of the case context. On one hand, clear and precise evidence was worked on by taking inconsistency and incongruity out of the research. Whereas, contradiction was adjunct to the categorizing process of the transcripts.

Throughout the three-week sessions, the primary sources such as interviews, observation, and field notes concentered the data analysis. Temporal triangulation was used to assess the impact of Voki on developing productive skills, i.e., writing and speaking, in a fourth-grader throughout three weeks of intervention. This study design meticulously collected data throughout the three big phases: pre-action phase (baseline skills measurement), implementation phase (scaffolded Voki activities infused into lesson plans), and post-action phase (gains measurement). Enhanced linguistic production by the learner and self-confidence were exemplary indicators of the intervention's success. Table 2 shows what has been expounded:

**Table 2**

*Indicators of the intervention's success*

<b>Participants</b>	<b>Before</b>	<b>During</b>	<b>After</b>
Instructor	The teacher applied a traditional lesson based on linguistic production.	Conventional class and usage of a gamified resource to develop speaking and writing skills.	ITC and gamified tool Voki led way to foster constructivist and connectivist learning toward the participant.
Student	The participant was a passive agent. He was accustomed to having conventional lessons in school.	Eager to acquire the L2 by creating an avatar on the app, lowering the participant's anxiety to speak and write.	Able to get hold of this Voki app mastering his productive skills in English and L2 engagement.
Parent	The mother was avid that her son could learn how to develop output abilities.	Doubtful about this gamified tool for developing productive competencies.	Acknowledging this gamified resource as a relevant tool for internalizing output skills.

## RESULTS AND DISCUSSION

The research lays bare how crucial ITC devices are for attaining a language from the beginning of the lessons. Nonetheless, the absence of these ITC resources makes the lesson boring and passive. Whereas, the usage of this Voki application made the lesson sessions remarkably advantageous for the participant who was engaged while working on it by lessening his fear of speaking and writing the L2. At its core, the study encloses a fascinating strategy for improving linguistic skills in a fourth grader; along with the participant's family support, he could speak and write in the L2.

The participant's reflections gathered during the interviews provided insight into his emotional and cognitive responses throughout the intervention. In the first interview, he stated:

*"I feel scared when I speak English, I don't know if I'm saying it good."*

This reflected his initial anxiety, which aligned with the field notes from the researchers of the first lesson that noted:

*"The student avoided eye contact when asked to repeat phrases in English. Body language suggested low confidence—slumped shoulders, little verbal output."*

However, during the second interview, conducted mid-intervention, the student shared:

*"I like the app, my avatar talks better than me, but I can try like him."*

Field notes from the fourth session supported this change:

*"The participant laughed after hearing his avatar speak. He voluntarily repeated the sentence into the microphone."*

By the final interview, the student remarked:

*"I can speak now. My mom listened and said 'wow'."*

In this phase, field notes confirmed improved confidence and autonomy:

*"Student requested to record three times to get a better sentence. Participated without prompts. High engagement observed."*

This triangulation of interviews and observation notes reveals a clear shift in the student's motivation and productive language use, validating the impact of gamification and Voki on his L2 acquisition.

In substance, the constructivist and connectivism instruction based on a motivation theory catered the classes where the fourth grade learner was able to personalize his learning by designing avatars where he could record his voice as well as type the topics learned throughout the three-week sessions.

Quintessentially, the participant's family was dogmatic about the teacher conducting English with a gamified approach in the second week because of their lack of digital literacy skills. However, the instructor trained the fourth grader and his mother. This demonstrates that digital illiteracy worsens 21st-century competencies in the English teaching process.

These findings align with the theoretical foundations established in this research. From a constructivist perspective, the student's active involvement in building knowledge through avatar creation and self-recording reflects experiential learning (Vygotsky, as cited in Rohman & Fauziati, 2022). Additionally, connectivist theory supports the use of Voki and gamification as digital tools that connect learners with information and technological environments to facilitate language acquisition (Siemens, as cited in

Alam, 2023). Finally, the increase in participation and autonomy observed across sessions demonstrates the impact of motivation theory (Gardner, as cited in Nurhidayah, 2020), where both intrinsic and extrinsic factors enhanced the student's willingness to speak and write in the L2.

**Table 3**

*Progression of Productive English Skills Through Intervention Phases*

Phase	Observed Speaking	Observed Writing	Engagement
Pre-Intervention	Very low (few words, avoidance)	Absent or copying only	Minimal
During Intervention	Emerging use of phrases, self-repetition	Short sentences with avatar support	High
Post-Intervention	Spontaneous expressions	Full short paragraphs using Voki	Very high

### **CONCLUSION**

This case study explored the integration of gamification and Voki to boost the productive English skills; speaking and writing of a fourth-grade student in Milagro, Ecuador, a context based on a low English proficiency and limited exposure to the target language. The case study, supported by constructivist, and connectivism theories, proved that the use of Gamification and Voki can significantly convert the student's traditional learning experience.


Additionally to this, through a carefully designed intervention of six lessons, data collected via interviews, class observations, and field notes the researchers demonstrated notable improvements in the participant's motivation, engagement, and language production.

The findings suggest that gamification with tools like Voki, not only boosted the student's intrinsic and extrinsic motivation but also eliminated common barriers such as insecurity in L2 communication. Also, the learner's experiences, as exposed through the thematic analysis and triangulated, demonstrated the potential that these strategies have in order to make the learning experience entertaining and meaningful. Furthermore, the case study highlighted the adaptability of such approaches in resource limited settings like Ecuadorian public schools, where traditional curriculum often fail to prioritize communicative competence.

The positive perceptions that the learner expressed regarding Voki and gamification suggest that these strategies could be helpful into another educational contexts, potentially enhancing English proficiency among young learners. Consequently, future studies could expand on this foundation by involucrating larger samples and more designs to further validate the efficacy of these tools. Ultimately, this case study contributes to the growing body of evidence supporting innovative, student-centered approaches to language learning, offering a promising pathway for educators seeking to break boundaries in EFL instruction.

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