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## UNIVERSAL DESIGN

LEARNING IN ENGLISH LANGUAGE TEACHING FOR BGU STUDENTS WITH INTERFERENCES IN THEIR ACADEMIC PERFORMANCE

### **DISEÑO UNIVERSAL DE APRENDIZAJE EN LA ENSEÑANZA DEL IDIOMA INGLÉS PARA ESTUDIANTES DE BACHILLERATO GENERAL UNIFICADO CON INTERFERENCIAS EN SU RENDIMIENTO ACADÉMICO**

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#### ABSTRACT

The purpose of this research is focused on the interest of integrating the principles of Universal Design for Learning (UDL) in the teaching of the English language in Unified general baccalaureate students who face academic interference, addressing the challenges they face and how this design can support effectively in their various needs, thus contributing to the advancement of inclusive educational practices by promoting equitable opportunities for all students. This research has theoretical value, practical usefulness and social relevance Through a comprehensive review of the literature and supported by qualitative research, framed in a descriptive action research methodology whose intentional sample included 10 students and 5 teachers from the Mejía National Institute of Quito. Observation, in-depth interview and a questionnaire reflected in field notes were implemented for data collection. An action plan was also made based on DUA practices in the teaching of the English language, concluding that teachers must know the learning styles of their students and apply strategies based on the DUA, thus generating pedagogical spaces for a significant teaching process. learning.

**Keywords:** Universal Design for Learning (UDL), interferences in learning, teaching English.

#### RESUMEN

El propósito de esta investigación está enfocado en el interés de integrar los principios del Diseño Universal para el Aprendizaje (DUA) en la enseñanza del idioma inglés en estudiantes de BGU que enfrentan interferencias académicas, abordando los desafíos que estos enfrentan y cómo este diseño puede apoyar eficazmente en sus diversas necesidades, contribuyendo de esta forma en el avance de las prácticas educativas inclusivas mediante la promoción de oportunidades equitativas para todos los estudiantes. La presente investigación posee un valor teórico, utilidad práctica y relevancia social a través de una revisión integral de la literatura y apoyado en la investigación cualitativa, se enmarca en una metodología de investigación acción de tipo descriptiva cuya muestra intencional contempló a 10 estudiantes y 5 docentes del Instituto Nacional Mejía de Quito. Se implementó para la recolección de datos la observación, entrevista a profundidad y un cuestionario reflejadas en notas de campo. Se realizó también un plan de acción basado en prácticas del DUA en la enseñanza del idioma inglés concluyendo que, los docentes deben conocer los estilos de aprendizajes de sus estudiantes y aplicar estrategias basadas en el DUA, generando así espacios pedagógicos para un significativo y efectivo proceso enseñanza-aprendizaje.

**Palabras clave:** Diseño Universal para el Aprendizaje (DUA), interferencias en el aprendizaje, enseñanza del Inglés.

## INTRODUCTION

In contemporary educational context, diversity is a feature of high school classrooms, where students present a wide range of learning needs and backgrounds. Students experiencing disruptions in their academic performance due to various factors such as personal issues, learning disabilities, or external distractions. These interferences affect with their ability to excel academically and may require additional support or accommodations to address and overcome the challenges they face; among these students are those who experience academic interference, which may result from learning difficulties, language barriers, cognitive differences, or socioeconomic challenges. Despite of this, "UDL is introduced as a purposeful design that considers the diverse needs of a wide variety of individuals" (Fornauf & Dangora, 2020). Effectively addressing the needs of these students is essential to ensure equitable access to education and facilitate their academic success, particularly in subjects as fundamental as English language learning. Hence, "Universal Design for Learning (UDL) is a pedagogical framework that requires teachers to shift their thinking about students' learning differences" (Eichhorn et al., 2019).

By implementing the UDL standards, educators proactively establish inclusive learning environments and pedagogies that empower students to become more self-directed learners by integrating options and taking away obstacles to learning in their teaching. "UDL is intended neither as a program, nor as something to implement with fidelity. Thus, there are multiple interpretations of UDL; in a sense, its dynamic and flexible nature can also be interpreted as its greatest source of elusiveness" (Fornauf & Dangora, 2020). An example of this is personalized learning environments, which are dynamic, adaptable, and consistent with UDL's fundamental principles.

This research explores the integration of Universal Design for Learning (UDL) principles into English language teaching for high school students with academic interference. In consequence UDL is a pedagogical window that emphasizes flexibility, inclusion, and accessibility in instructional design, to address the diverse needs and preferences of all students; "UDL is a framework along with the integration of modern technology begins to provide a proactive mechanism to account for learner variability and maximizes student learning" (Basham et al., 2020). By adopting the principles of UDL, educators can create learning environments that accommodate variability in students' abilities, backgrounds, and learning styles, thereby fostering engagement, participation, and academic achievement. Thanks to modern technologies, more

adaptable learning environments and materials may now be created, enabling UDL.

Through an in-depth exploration of the integration of Universal Design for Learning (UDL) principles into English language teaching, this research aims to contribute to the existing body of knowledge on inclusive education and pedagogical practices. By highlighting the potential benefits, challenges, and practical implications of implementing UDL, through teacher training as well as policymakers, and other stakeholders involved in English language teaching in secondary school settings, ultimately promoting greater equity, accessibility, and academic success for all students.

This research is based on three interesting theories, which are presented below: Neurolinguistic Programming, Neuroscience and Humanistics.

Neurolinguistic programming, in simple terms NLP, is a psychological approach that focuses on the connection between neurological processes, language, and behavioral patterns learned through experience. Its goal is to help people reprogram their thoughts and behaviors for personal development and improving their communication skills. NLP techniques include modeling successful behaviors and using language patterns to achieve desired results. "NLP is considered an assistive technology that can help teachers and students develop outstanding skills such as critical thinking, academic performance, emotional intelligence, self-efficacy and empathy" (Begum et al. 2022).

The learning styles model of Neurolinguistic Programming (NLP) takes into account the neurolinguistic criterion, which considers that the way information enters the brain (eye, ear, body) It is fundamental in the preferences of who learns or teaches. Specifically, human beings have three major systems to mentally represent information: visual, auditory and kinesthetic (VAK). However, most people use the systems unevenly, enhancing some and underusing others. Representation systems develop more the more they are used and consequently, using a system more implies that there are systems that are used less, and therefore the systems of representation will have different degrees of development (Costa et al., 2020).

Educational Neuroscience is an interdisciplinary field that explores the relationship between neuroscience and education. It seeks to understand how the brain learns and processes information to inform teaching practices and improve educational outcomes. By studying brain development, cognitive functions, and learning processes, educational neuroscientists aim to identify effective teaching methods, educational interventions, and classroom

strategies that optimize learning for all students. This field draws on findings from neuroscience, psychology, education, and related disciplines to bridge the gap between research and practice in education. By integrating insights from neuroscience into educational theory and practice, educational neuroscience offers promising avenues to improve teaching and learning experiences, foster individualized instruction, and promote educational equity (Schutz & Muis, 2023).

Humanistic theory in education emphasizes the holistic development of individuals, focusing on their intellectual, emotional, social, and ethical growth. Rooted in the philosophy of humanism, this educational approach values the unique potential and dignity of each student. Humanistic educators prioritize student-centered learning experiences that foster self-discovery, critical thinking, creativity, and personal fulfillment. They advocate for an inclusive and supportive learning environment that respects students' autonomy, interests, and cultural backgrounds. Unlike traditional models of education, which may prioritize memorization and standardized testing, humanistic theory emphasizes the importance of fostering students' intrinsic motivation, curiosity, and love of learning. Through meaningful interactions, dialogue, and experiential learning opportunities, humanistic educators aim to cultivate well-rounded people who are equipped with the skills, values, and attitudes necessary to thrive in a rapidly changing world. "Education has a significant and strategic role in guaranteeing the progress of cognitive, psychomotor and affective intelligence. Objectives of education to improve human ability to create a good personality" (Javadi & Tahmasbi, 2020)

Therefore, the following questions arise:

How can Universal Design for Learning (UDL) principles be effectively integrated into English language teaching to address the diverse needs of high school students?

What are the possible benefits and limitations of implementing UDL in English language teaching for high school students with academic interference?

What are the practical implications and recommendations for educators seeking to integrate UDL principles into their English language teaching practices in the secondary school setting?

The main objective of this research is to recognize how the application of UDL principles can improve English language teaching for BGU students who experience academic interference.

## MATERIALS AND METHODS

This research applied a qualitative research study "Qualitative which is based on the selection of a study's participants who's purposeful, it enriches the study and provides deep information and knowledge" (Almumen, 2020).

This investigation proposes a comprehensive framework integrating investigation and action to foster organizational learning and performance; employing qualitative method, it aims to develop actionable insights. The study is based on research – action, it is a methodology that integrates research and practical action in educational settings, promoting collaborative problem-solving and continuous improvement.

Primer, participatory action research (PAR) is a scholar-activist research approach that brings together community members, activists and scholars to co-create knowledge and social change in tandem. PAR is a collaborative, iterative, often open-ended and unpredictable endeavour, which prioritizes the expertise of those experiencing a social issue and uses systematic research methodologies to generate new insights (Cornish et al, 2023).

The assistant principals at the ten students accepted the examination, it facilitated the process of observing the classes and it enabled the researcher to interview and observe the teachers.

A questionnaire of ten questions based on learning styles was applied to ten students from the second BGU with interference in learning a second language (English). Likewise, an interview protocol was created based on five semi-structured questions to explore the scope of knowledge that the five English teachers have about the UDL and about their classroom practices. This sample was selected from a population represented by the "Mejía National Institute" which houses 5,000 students and 300 teachers, located in Quito – Ecuador.

The students did a questionnaire based in NLP to identify the dominant type of intelligent perception (auditory, visual and kinesthetic) "There are three types of learning styles that will be discussed in this research, namely visual (tend to learn through what they see), auditory (learn through what they hear) and kinesthetic (learn through movement and touch)" (Karinena, 2023).

Temporal triangulation was used to analyze the data. "which involves corroborating findings at the three different moments of the research in order to guarantee the rigor and validity of the integrated research through the application of questionnaires, interviews, observations, field notes and documents that provide a comprehensive

understanding” (Creswell, 2018) and from it contrasted information was obtained from the various times which are the following: the previous one, through the observation of the typical or unified class, where the initiative of this research is located; the midpoint one, when the activity was temporarily divided into two phases of staggered action, the training and application of the teaching strategy to teachers, and the posterior one, when the effects on people and the environment were evaluated and observed. Thus, clarifying the usefulness and scope of the study through the results obtained.

Categorization, or the detailed transcription of the contents, was used as a processing step for information analysis. This led to interpretations, well-founded understanding and reflection, and the creation of theories about the world under study.

The information was coded and examined to compare the meanings. The aspects of the reports that were found to differ, coincide, and oppose each other were noted. The evidence presented in the case opposition was compared to transcriptions.

Through the analysis of data gathered, including notes, suggestions, and opinions from the various actors that inhabit the institution.

## RESULTS AND DISCUSSION

### A. Prior

It was found in the study carried out that a lot of teachers were unfamiliar with UDL, low baseline awareness and limited knowledge of inclusive practices. On the other hand, the students had distraction, disinterest, indiscipline and especially low average; it was caused because of the frustration for the reason that they don't understand English and lack of desire to learn the subject.

### B. Mid-point

During the time, the teachers showed improved understanding, positive attitudes, increased readiness for implementation especially about UDL. In other ways, the students had motivation towards learning all the time.

### C. Posterior

As a result of, teachers did positive teaching practices, improved student engagement, increased use of diverse instructional strategies, transform teaching practices and promoting inclusive education, now the teachers can apply in the correct way the UDL. For all that, the students under study showed changes in attitude significant in the learning given to the strategies applied by the teacher thanks to improve the connection between students and teachers through dialogue and it caused the students pay more attention in class (See table 1, 2 and 3).

Table 1. Activities - Action Plan.

Activities	Indicators	Resources
Initial diagnosis of student	Learning styles	Class observationm Questionnaire
Teacher's role to learning styles	Strategies within each class for attention to learning styles	Class observation Interview
Seminar about UDL	Strategies for using learning styles	Workshop
Application and evaluation	Strategies of UDL for learning styles	Activities in class

Source: self-made.

Table 2. Learning styles.

Number of students	Learning style	UDL Strategies
5	Auditory	Lecture Summaries and Verbal Recaps Audio Recordings and Podcasts Group Discussions and Oral Presentations

3	Visual	Graphic Organizers Color Coding and Highlighting Drawing or sketching
2	Kinesthetic	Interactive Simulations and Experiments Role-Playing and Real-World Applications Movement Breaks and Kinesthetic Learning Stations

Source: self-made.

Table 3. Reflective analysis.

	Light	Shadow	Challenge
Teachers	Interest of teachers to learn and apply the UDL	The teachers did not apply the UDL for inclusive education	Work in groups according to their learning style
Students	Interest to learn the subject	They get frustrated when they don't understand the topic	Improvement in the class when the teachers apply all of the learning styles

Source: self-made.

## CONCLUSIONS

The application of UDL principles can enhance English language teaching for BGU students by offering flexible instructional methods, diverse materials, and varied assessments accommodating their learning needs. By providing multiple means of representation, expression, and engagement, UDL fosters inclusivity, promotes active participation, and addresses barriers to learning. This approach encourages personalized learning experiences, boosts student confidence, and improves academic performance among BGU students experiencing academic interference.

Benefits of UDL in English language teaching for high school students with academic interference include personalized learning, improved accessibility, and enhanced engagement. However, challenges may arise in adapting materials for diverse needs, ensuring teacher readiness, and addressing potential resistance. Effective implementation requires ongoing support, collaboration, and flexible instructional approaches.

Educators should prioritize professional development on UDL, focusing on designing flexible learning experiences and adapting materials for diverse learners. Collaboration with special education experts and leveraging technology can enhance accessibility. Regular reflection and feedback from students can inform ongoing adjustments, fostering inclusive English language teaching practices in secondary schools.

Incorporating Universal Design for Learning (UDL) in English language teaching for BGU students with academic interferences offers a promising approach to address diverse learning needs. By embracing UDL principles, educators can create inclusive learning environments that

accommodate variability, promote engagement, and enhance academic outcomes. Effective implementation requires ongoing professional development, collaboration, and flexibility to tailor instruction to individual student needs, ultimately fostering equitable opportunities for success in English language learning.

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