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The Effect of Teaching English Grammar Bilingually to True Beginners at a University in Ecuador

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## ABSTRACT

This study looked into how teaching grammar bilingually affected the performance of students English as a Foreign Language (EFL) on grammar examination at an Ecuadorian institution of higher education. Research to date has predominantly focused on the attitudes and preferences of instructors and students about the use of the first language, how it is distributed during class, how it helps learners work together to complete tasks, and how teacher and student interactions take place in the classroom. Research on the impact of L1 use on L2 learning has mostly examined vocabulary learning. In the current study, 71 students, aged 17 to 36, enrolled in a preparation course prior to university classes were randomly assigned to a condition in which the L2 grammar was taught bilingually or a condition in which the L2 grammar was explained using only the L2, and their performance on grammar was tested and compared. The results of this study suggest that grammar learning was enhanced by both the bilingual condition and the L2-only condition. The results demonstrate that there were not significant differences on both immediate and delayed posttests between the bilingual instruction condition and the L2-only condition. There are some suggested explanations for these findings.

## Keywords: effect; teaching; language; students.

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The Effect of Teaching English Grammar Bilingually to True Beginners at a University in Ecuador

## RESUMEN

Este estudio analizó cómo la enseñanza bilingüe de la gramática inglesa afectó el desempeño de los estudiantes de inglés como lengua extranjera (EFL) en las pruebas de gramática en una institución de educación superior ecuatoriana. La investigación hasta la fecha se ha concentrado en las actitudes y preferencias de los instructores y estudiantes sobre el uso de la lengua natal, cómo se distribuye durante la clase, cómo ayuda a los estudiantes a trabajar juntos para completar las tareas, cómo se dan las interacciones entre maestros y estudiantes en el salón de clases, y el impacto en el aprendizaje de vocabulario L2. En este estudio, 71 estudiantes, de 17 a 36 años de edad, matriculados en un curso preuniversitario, fueron asignados aleatoriamente a una condición en la que la gramática L2 se enseñaba de forma bilingüe o una condición en la que la gramática L2 se explicaba utilizando solo la L2, y se evaluó y comparó el desempeño en gramática. Los resultados sugieren que el aprendizaje de la gramática mejoró en ambas condiciones y no hubo diferencias significativas entre las pruebas posteriores inmediatas y tardías entre los grupos. Se presentan en este documento algunas posibles explicaciones sobre estos hallazgos.

***Palabras clave:*** efecto; enseñanza; idioma; estudiantes.

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## INTRODUCTION

Although there are currently theoretical advancements, research findings, and prominent writers of English Language Teaching (ELT) methodology that attribute the learner's first language (L1) a role in learning a second language (L2) such as Newton and Nation (2021), Nation and Macallister (2021), and Scrivener (2017), there is still the perception among some English language teachers that excluding the learners' L1 from the classroom is associated with good standards in the discipline. This misconception could lead to the formal implementation of practices that could deprive learners and teachers from a very important mediating tool. As an example, current laws governing higher education in Ecuador mandate that undergraduates reach a level of proficiency in English language equivalent to the B1 level of the Common European Framework of Reference for Languages. Thus, decision makers at universities, based on wrong assumptions about L1 use in the L2 classroom, could adopt policies and guidelines that suppress the learners' L1 during L2 instruction. This could make more difficult for lerners to reach the B1 level of proficiency. Therefore, it is very important to teach learners with current teaching practices based on research, and not on opinions.

In this vein, this study attempts to provide stakeholders important insights about the role of the learners’ L1 in L2 acquisition and demystify its use in the classroom. This research-based information will also support administrators and teachers in their decisions and daily teaching. In addition, since the learners’ L1 is valued and recognized, lessons will be authentically student-centered. But first, we have to take a look at the current state of knowledge on this respect.

Some scholars have made a literature review on the use of the L1 in the L2 classroom. For instance, Almoayidi (2018) concluded that even though there are numerous studies that claim that using the L1 does contribute to L2 learning, other studies suggest that the best way to learn an L2 is by using the L2 as the language of the instruction, and that the decision to use one or the other will depend on several factors such as the type of learners, the instructor’s L2 level of proficiency, the learner’s purposes of learning the L2, and government or school regulations. Zulfilkar (2019) states that using the L1 in the L2 classroom is inevitable and it does not impede L2 learning and has a facilitating and key role in learning and teaching language. Shin et al. (2020) made a review of published empirical literature on the use of the L1 in the FL classroom from 2011 to 2018. They found that the majority of studies support judicious L1 use in L2 instruction. By that it’s meant not only the amount and frequency of L1, but also its purpose, content, and type of tasks to maximize L2 learning.

Other researchers have conducted interviews and collected data from questionnaires and semi-structured interviews administered to learners to get insights regarding their views on L1 use in the L2 classroom. These studies have in common that they found that learners have a favorable use of the L1 for learning the L2. For instance, Shariati (2019), found that lower-level proficiency learners have a better attitude towards L1 use than upper-level learners. Participants reported they used the L1 to ask new language topics, to find correct English words, and to explain grammar points to their classmates. They also believed that teachers should use the L1 to explain difficult vocabulary, grammar, and for class management. Galali and Cinkara (2017) found similar responses from their student participants, but with the difference that advanced learners preferred the L2 because it is more conducive to L2 learning. Only in Saburlu’s study (2019) learners reported negative views on L1 use, arguing that they can learn faster and easily when they are exposed to the L2 more often.

Similarly, other researchers have aimed to study the teachers’ perspectives on L1 use in teaching the L2 through questionnaires and semi-structured interviews, too. Georgious and Krulatz (2018) reported from surveys that 92% of the 24 in-service elementary and middle-school EFL teachers in Norway employed the L1 in L2 teaching. In the same way, data from questionnaires provided to foreign language teachers in England and Spain by Molway, Arcos, and Macaro (2022) showed that both groups used their corresponding L1 in classes. Furthermore, teachers mostly used the L1 at lower levels of proficiency (Taşçı & Ataç, 2020; Algazo, 2022). Among the reasons teachers use the L1 for L2 teaching, Taşçı and Ataç (2020) obtained the following from semi-structured interviews and class observations of three primary school teachers in Turkey: to give instructions, to teach grammar, to teach difficult vocabulary, to manage the classroom, to check understanding, to draw students’ attention, to elicit, and to provide feedback. Likewise, Perdani’s (2021) research showed that four high school English language teachers from Indonesia provided information through questionnaires and semi-structured interviews that they use the L1 because it was easier for them to interact with their students, to explain L2 grammar, clarify meaning, and teach difficult words. From İnal and Turhanlı’s (2019) questionnaires and semi-structured interviews, 18 EFL university teachers from Turkey expressed, despite they believe the L1 has several functions such as teaching grammar, explaining vocabulary, dealing with disciplinary issues, and raising students’ awareness of the differences and similarities between English and their L1, they thought the L1 should not be used when teaching the four skills.

A third group of researchers attempted to find both the teachers’ and learners’ perceptions on using the L1 in L2 lessons. In a study conducted by Tajgozari (2017) at an English language institute in Iran, 56 EFL learners at elementary, intermediate, and advance levels, and 11 EFL teachers responded through questionnaires (the students) and interviews (teachers) that they had a positive perception of L1 use although most teachers stated their unwillingness to use it in the L2 classroom. In addition, ninety percent of elementary students, 73.3% of intermediate ones, and 52.1% of advanced students demonstrated positive opinions on L1 use in English classes. By the same token, Mahmud (2018) reported from the questionnaires and interviews administered to 10 teachers and 60 students at a university in Bangladesh that these pedagogical functions of L1 use were found: explanation of meaning, grammar, and complex patterns of language, and building rapport with learners. However, teachers recommended judicious use of the L1 (Bangla). Another reason why teachers have to recur to L1 use to teach the L2 is due to an important number of challenges teachers have to face such as insufficient time to complete the syllabus and learners’ weak linguistic background (Rasheed, Zeeshan, & Zaidi, 2017)

As seen so far, there is an important amount of empirical evidence that supports L1 use in the L2 classroom. Nevertheless, aversion towards the use of the L1 in learning the L2 still prevails. Moreover, the results of some research could be misleading in favor of total ban of the L1 in the L2 lesson. For example, Septianasari, Huznatul, and Baihaqui (2019) concluded that the L1 grammar and phonology interferes with L2 learning. However, as educators, we have to make a balance of the advantages and disadvantages of using the L1 for L2 teaching.

To summarize, the insights obtained from recent empirical evidence shows there is a role for the L1 in L2 learning and teaching. Since one of the uses for the L1 was to teach grammar, this research tried to contribute to the current scientific literature by attempting to find whether there is a difference in pretest and posttest scores of grammar achievement tests between a group of beginner-level students enrolled in preparatory courses prior to enter college that received grammar instruction bilingually and another group with the same type of students that received the same grammar instruction only in English. Therefore, the hypotheses were the following:

(1) there is a difference in the scores of post-tests between pre-A1 EFL learners who are taught grammar using the L1 and pre-A1 EFL learners who are taught in L2-only; (2)

there is a difference in the scores of delayed tests between pre-A1 EFL learners who are taught grammar using the L1 and pre-A1 EFL learners who are taught in L2-only.

## METHODS

This paper aligns to a positive research paradigm and adopted a quantitative research method. The research design was quasi-experimental and involved a pretest/posttest control group design, and a delayed test for each group after two weeks from the final instructional session. The data obtained from grammar tests were scored and statistical analysis was conducted.

The participants were originally 71 students enrolled in a preparation course prior to be admitted to a university located in Quevedo city, in Ecuador. After obtaining authorization from the corresponding officials from the university, students from 33 classrooms were invited to be part of the research. They were provided with detailed information about the study through an Informed Consent Form (IFC). A different version that required parents or custodians’ approval was given to minors. A total of 142 students signed the IFC and took a placement test on a different day. This instrument was part of the course book used at the university. The publisher authorized the use of its materials for this research. Because the study focused on true beginners or pre-A1 learners, only participants who were placed at level 1A or 1B were selected, which was a total of 71 people. According to the table provided by the course book, students who are placed at those levels are on the way to attain an A1 level. The ages of the final participants ranged from 17 to 23, but one of them was 36. Then they were randomly placed in an experimental group or in a control group with a matching process based on gender. After that, there were a total of 35 participants in the control group, and 36 participants in the experimental group. The number of participants decreased during the study up to 9 people for the experimental group and 14 people for the control one in the last session in week 4.

The instructional material was the same coursebook used for level 1 students at the university. The grammar topics for this study included the following: 1) The simple present of the verb be and possessive adjectives; 2) singular subject pronouns and yes-no questions with be; 3) plural subject pronouns and wh-questions with be; 4) *Who* and *How old* with be; 5) demonstratives, articles *a* and *an*, and plurals; 6) possessive pronouns, whose, and possessive nouns; 7) simple present statements; 8) simple present yes-no questions.

The research took place in six weeks in January and February in 2017. In the first four weeks, participants attended two 2-hour class sessions a week. The experimental group attended lessons on Mondays and Wednesdays from 8:30 a.m. to 10:30 a.m. The control group attended on Tuesdays and Thursdays from 8:30 a.m. to 10:30 a.m. Two weeks after the final session, participants took another test to measure the mid-term effect of both types of instruction.

Before and after each class, a pretest and a posttest were given to the control group and experimental group to measure the effect of grammar instruction between groups and within groups. Even though the testing instrument was part of the material of the course book, which was designed by a worldwide publisher from one of the top five universities in the world, we confirmed the tests measured the grammar topics to be taught in each session.

All lessons were taught in English by the same teacher in the same way, except for the experimental group, who received English grammar instruction by using translation through the sequence L2-L1-L2, for each word, phrase, or sentence. The rest of the lesson was completely in English and taught in the same way as the control group. Both groups were taught by using the Presentation-Practice-Production (PPP) approach.

Before each lesson started, participants were given a grammar test about the topics to be explained on that day. Participants were given 8 minutes to complete them. After that, each lesson for both groups began by introducing new vocabulary explicitly through contextualization, cognates, drawings, pictures, and verbal and written explanations delivered only in English. Then an audio recording containing a conversation was played. The conversation included the vocabulary introduced previously and the new grammar, which was presented implicitly and contextualized. After that, grammar was explained through the use of a table that highlighted in bold letters the new structures to help learners to notice them. Grammar was explained in English, but the experimental group received an explanation bilingually by using the sequence L2-L1-L2 for words, phrases, or sentences. After concept check questions, participants completed a sheet of grammar exercises individually, and help was provided during that activity. Later, the teacher and students checked the answers in class. Then participants were given a semi-controlled speaking activity. Assistance and feedback were offered at the request of participants or the teacher interrupted a conversation if a mistake was so important that could impede communication in the future.

Once the speaking activity was over, the grammar posttest was administered using the same instrument from the course book. Lessons were only for four weeks. Two weeks after the final session, participants took a delayed test in order to measure the mid-term effect of both types of grammar instruction.

Then the tests were marked, and scores were obtained and entered in a Microsoft Excel spreadsheet. Next, the scores were registered by session, by group, and by the type of test (pretest/posttest/delayed test). After that, it was necessary to standardize the scores over 10 points in order to make valid quantitative comparisons.

The *t* statistic was selected for the inferential analysis because the type of scale was nominal and the sample size was less than 30. Since we wanted to make comparisons of grammar test scores between groups (independent measures) and within groups (repeated measures), we had to consider if certain statistical assumptions were met in order to choose the correct *t* test.

According to Gravetter and Wallnau (2013), before using the *t* test for independent measures, three assumptions must be taken into consideration: 1) the data must come from two independent samples; 2) the two populations of the sample must have a normal distribution; and 3) the variances of the two populations of the samples must be equal. As for the first criteria, we confirmed it was met since the samples came from two different groups (the control and experimental ones). With respect to the second assumption, we believed the two samples came from populations with a normal discribution since the total amount of pre-university students was around 1,200 people, and data have a tendency to create a normal curve as the number of observations increases (Gravetter & Wallnau, 2013). As with the third assumption, it was difficult to know whether the variance from the two populations were equal, thus, according to Larson-Hall (2012), when the equal variance criteria cannot be met, Welch’s *t* test is recommended. As a consequence, in order to compare test scores between the control and experimental groups, we selected that type of *t* test, also known as *t* test for unequal variances.

As regards with the statistic to compare grammar test scores within each group (repeated-measures or within-subject design), we chose Wilcoxon test based on the following rationale. Because the participants’ mortality increased during the study (n < 30), we initially considered the dependent *t* test. There are two assumptions to meet before using thistest: 1) the observations must be independent within each treatment; 2) the population’s difference scores must have a normal distribution and it should not be a concern if the sample size is large enough (Gravetter & Wallnau, 2013). In our study, the first assumption was met since the treatment applied to the same participants took place at different times. As for the second assumption, we believed it was not fulfilled, given that the sample size decreased during the period of the study. Nevertheless, when either of the above assumptions cannot be satisfied for dependent sample *t* test, the Wilcoxon test is suggested (Gravetter & Wallnau, 2013).

We used IBM SPSS version 23 to obtain the statistics and elaborate the tables showed below. To corroborate the results given by the SPSS software, we used the calculator provided at www.socscistatistics.com/tests. On the other hand, we calculated Cohen’s *d* on a MS Excel spreadsheet by using the formula presented by Gravetter and Wallnau (2013). Finally, we also used the online calculator at https://lbecker.uccs.edu/ to verify Cohen’s *d* calculations.

## RESULTADOS Y DISCUSIÓN

En este apartado se exponen los hallazgos, lo trascendente del estudio expresado con cierto detalle en la exposición que sostenga el porqué del trabajo: justificando las conclusiones a las que se arribó. Los resultados deben ser objetivos y claros demostrando que son la consecuencia lógica de la metodología utilizada.

No se debe ser reiterativo, es decir, no debe de exponer un mismo dato o conjunto de datos en màs de un formato, ya sea texto, cuadros o gráficas. Es suficiente sólo una forma de presentación. Así también los datos deben presentarse estableciéndose un orden lógico y sistemático, que a su vez permitan la discusión con la teoría que sustenta el trabajo, así como con antecedentes de otras investigaciones resaltando similitudes y contraposiciones.

También durante la discusión se podrá exponer las interpretaciones del autor, como explicaciones de principios, regularidades y las consecuentes generalizaciones del trabajo, en los casos que amerite.

Finalmente, debe subrayarse la novedad científica, lo controversial, las perspectivas y prospectivas teóricas, las aplicaciones prácticas y la pertinencia del trabajo en relación a la línea de investigación.

## ILUSTRACIONES, TABLAS, FIGURAS.

Necesariamente numeradas en forma correlativa que permitan su referencia inmediata en el texto. Con cabeceras apropiadas con sus títulos correspondientes. Leyendas explicativas que aclaren símbolos, abreviaturas, etc. así, también guías de datos, imágenes, estadísticas, etc. Al tratarse de las tablas, éstas determinarán claramente en cada columna un encabezamiento, precisando el tipo de datos que se registran en ella y las unidades de medida que se hubieren utilizado.

## CONCLUSIONES

No se repite lo anteriormente dicho. El autor expresa su criterio, su postura específica frente al tema y lo sustenta de conformidad con los datos obtenidos y una argumentación teórica con plena consistencia en aquellos. No debe salirse de este rango, no debe caer en la subjetividad, evite argumentaciones sin evidencia fáctica-reflexiva de los mismos.

Y finalmente, en caso de que existan indicios o interrogantes no resueltos, plantéelos en este apartado compartiendo la tarea pendiente con otros investigadores que pueden acompañar y ampliar el estudio.

## LISTA DE REFERENCIAS

En este apartado se expondrán todas las fuentes consultadas y citadas en el artículo. Ya sean que fueran presentadas como citas directas o indirectas, se enlistaran por orden alfabético según las recomendaciones de las Normas de Estilo APA (Sexta o Séptima Edición). Se recomienda no citar páginas de internet cuyos contenidos no estén debidamente comprobados y que no mantengan estándares de calidad requeridos para un artículo científico (ejemplos: rincón del vago, monografías de dudosa procedencia, entre otras).

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