The impact of the translanguaging approach on English learning for elementary students

El impacto del enfoque de translingüismo en el aprendizaje del inglés para estudiantes de básica elemental

Autores:

Chacón-Vélez, Cynthia Tatiana UNIVERSIDAD CATOLICA DE CUENCA Maestría en Enseñanza de Inglés como Lengua Extranjera Cuenca – Ecuador



Argudo-Serrano, Juanita Catalina UNIVERSIDAD CATÓLICA DE CUENCA Lcda. en Ciencias de la Educación con Mención en Inglés PhD. En Ciencias de la Educación Cuenca – Ecuador



Fechas de recepción: 09-MAR-2025 aceptación: 09-ABR-2025 publicación: 30-JUN-2025





Resumen

Esta revisión de la literatura analiza el impacto del enfoque del translingüismo, en el aprendizaje del inglés a estudiantes de educación básica primaria o elemental, centrándose en las estrategias de expresión oral y en las percepciones de los docentes y los estudiantes. El translingüismo, que implica el uso de múltiples lenguas durante el proceso educativo, ha sido reconocido como un método eficaz para fomentar el desarrollo lingüístico en entornos multilingües. El estudio examina cuatro estrategias que pueden influir en las habilidades orales de los estudiantes. Asimismo, se indaga sobre las percepciones tanto de los docentes, como de los alumnos respecto al papel del translingüismo, incluyendo tanto sus ventajas como sus desventajas. Se revisaron y analizaron 24 artículos. El estudio recoge las percepciones de ambos grupos para entender cómo el translingüismo ayuda a superar las barreras lingüísticas y facilita una comunicación significativa, aunque también se identifican algunos retos. Los resultados indican que permitir a los estudiantes emplear su lengua materna junto con el inglés mejora su comprensión, reduce la ansiedad, proporciona un entorno seguro y favorece su participación en las actividades orales, especialmente en niños o niñas o incluso en principiantes. La investigación concluye que el translingüismo es un enfoque útil para fortalecer las habilidades orales en inglés, promoviendo un aula más inclusiva y colaborativa, aunque aún quedan aspectos por considerar.

Palabras clave: Translingüismo; Estrategias Orales; Percepciones; Docentes; Estudiante

Abstract

This literature review investigates the impact of the translanguaging approach on English learning among elementary students, with an emphasis on speaking strategies and the teachers' and students' perceptions. Translanguaging, which involves the use of multiple languages in the learning process, has gained recognition as an effective method for supporting language growth in multilingual classrooms. The study explores four reported strategies and how these affect students' speaking abilities. Additionally, it examines teachers' and students' views on the role of translanguaging and its positive and negative aspects. A total of 24 articles were analyzed. The study gathers insights from both teachers and students to understand how translanguaging helps bridge language barriers and foster meaningful communication; however, some challenges appear. The discoveries reveal that allowing learners to use their native languages alongside English enhances their comprehension, reduces anxiety, provides a safe environment, and boosts their involvement in speaking tasks, especially for young learners or beginners. The research concludes that translanguaging is a beneficial approach which enhances English speaking skills and creating a more collaborative and inclusive class, but some aspects still need to be considered.

Keywords: Translanguaging; Speaking Strategies; Perceptions; Teachers; Students

Introduction

Translanguaging in its basic form has been considered a theory for language practice (Marrero-Colón, 2021) and also a method that may describe bilingual and multilingual complex language practices in speakers (García, 2009). Williams (1994) introduced the term as an educational concept to describe how bilinguals or multilinguals use their languages in everyday life to navigate and understand their bilingual environment (García & Lin, 2017). Moreover, translanguaging has gained prominence in education as a term for the flexible language habits of bilingual and multilingual individuals (García & Lin, 2017). In this context, two or more languages can be used simultaneously letting the participants to utilize their linguistic skills connected to communication (Garcia & Wei, 2014).

Translanguaging, in the words of Baker (2011), refers to the process of constructing meaning, shaping experiences, and acquiring by using two languages. According to García and Lin (2017), translanguaging is closely connected to the examination of code-switching in educational settings, and this challenges the traditional practice of keeping languages separate in teaching and learning process. Lewis et al. (2012) refers that translanguaging involves the dynamic and interconnected use of two languages to facilitate and support mental and cognitive related to speaking, literacy, comprehension and learning. The authors also emphasize effective communication, concentrating on function rather than structure, cognitive processes, and linguistic output. Along the same lines, Williams (1994) defined that translanguaging uses one of the languages to reinforce the second one and enhance the students' proficiency in both languages.

Regarding the history of translanguaging, Lewis et al. (2012) mention that the word translanguaging has a Welsh origin and came from the 1980s. Then, García and Lin (2017) indicated that Williams (1994) first coined the term trawsieithu, subsequently translated into the English word translinguifying and then transformed to translanguaging, to describe a teaching technique where students in bilingual Welsh/English classes were encouraged to alternate between languages for both receptive and productive tasks. According to Lewis et al. (2012), in translanguaging, someone receives information through one language and later

uses it in the medium of another language. Moreover, Baker (2011) states that both teachers and students instinctively utilize both languages to enhance learning.

To exemplify translanguaging, García et al. (2012) state that this approach can happen when the input is in one language and the output is in the other language, and initially, it was linked to bilingual education for "building bilingual students" (p. 52). Another example, referred to by Stathopoulou (2016) is that translanguaging may be when a teacher asks questions in the original language and expects the students to respond in the second language. Likewise, this last author mentions that when the teacher does a reading or listening activity in the first language, it may be supposed that the students respond to oral or written activities in the second language.

For the mentioned reasons, translanguaging contradicts the traditional monolingual language ideology that has the assumption that there should be an exclusive target language used without some permission for translation (Cummins, 2007). This approach has gained a lot of influence in the educational fields of bilingualism and multilingualism (Lin, 2020). Singleton and Flynn (2022) describe translanguaging as "a new star suddenly visible in every corner of our galaxy!" (p. 136) to refer to its popularity. Moreover, Cenoz (2013) confirms that the use of multiple languages has become more visible due to globalization or the mobility of the population. Additionally, it has also become popular in topics like applied linguistics and Teaching English to Speakers of Other Languages (TESOL) (Lin, 2020). However, Liu (2022) mentions that for some people, this may be considered just another trend in language education.

In this context, Dougherty (2021) states that it is relevant that new practices in education evolve at all levels, developing all the linguistic repertoire in the students, and translanguaging can be one of them with its proper use and specific strategies. Likewise, Tsokalidou and Skourtou (2020) stated that this method could eliminate some gaps when learning a new language and can offer a sense of achievement in the linguistic and cultural legacy.

Beyond the idea of translanguaging and all the information that relies on it, it is important to understand how this can affect the student's language acquisition, specifically towards productive skills, like speaking. This article emphasizes some generalities and concepts on translanguaging, analyzes some strategies within the classroom for elementary learners, and its benefits, challenges, and teachers' and students' perceptions. This literature examines the effects of the translanguaging approach on English learning for elementary students, focusing on strategies, benefits, challenges, and stakeholders' perceptions.

On the other hand, it is relevant to understand some terms related to translanguaging. The common words associated with this approach are bilingualism, multilingualism, and codeswitching.

Bilingualism

Baker (2011) remarks that in bilingualism two or more languages are used, and it may vary on the ability; for instance, some are more actively bilingual, and others are more passive or receptive. The same author states that it also depends on the context where the language is acquired and its purpose (home, school, work, etc.), the age, its development, and the balance of the two languages due to generally one language is dominant (Baker, 2011). Schmid (2015) affirms that bilingualism is a researched form of multilingualism, in which terms are often used similarly.

Multilingualism

The European Commission (2007) defines it as the capacity of institutions, societies, groups, and individuals to consistently use multiple languages in their everyday activities.

Code-switching

Lin (2013) states that code-switching involves both teachers and students using two or more languages in class sessions, a practice commonly seen throughout the teaching and learning process. Moreover, Nordin et al. (2012) mention that language acts as a key link for communication among teachers and students, and when disruptions occur, code-switching frequently emerges as the most effective solution. Additionally, Reyes (2004) says that codeswitching might take place from the widespread belief that switching to a different language happens because of a lack of ability or proficiency in the language the conversation began.

Literature review

The literature supporting this project has been categorized into four sections. First, the regions where the studies for speaking strategies took place; second, the effects of different translanguaging strategies in the classroom; the teacher's perception of translanguaging, and

fourth, the student's perception of translanguaging. For this purpose, different authors have analyzed and reported its outcomes (Aoyama, 2020; Andleeb et al., 2024; Chicherina Strelkova, 2023; Dougherty, 2024; Elashhab, 2020; Fand & Liu, 2020; Flynn et al., 2021; Fuster & Bardel, 2024; Gren, 2022; Ha et al., 2021; Karlberg & Eriksson, 2022; Kucukali & Kocbas, 2021; Lu & Zuo, 2023; Marrero-Colón, 2021; Nguyen, 2022; Nursanti, 2021; Puspitasari & Sugirin, 2024; Rodríguez, 2023; Sato, 2023; Sibongile et al., 2024; Tabatabaei, 2019; Wang & East, 2024; Yuvayapan, 2019).

Regions where the studies for speaking strategies took place:

Bolton (2008) proposes a framework for understanding English usage in Asia, considering historical influences, particularly in former British colonies where English became a second language. He also highlights the bilingual settings in which people commonly change between English and local languages in everyday conversations. Meanwhile, Low and Ao (2018) explore the linguistic diversity in Southeast Asia, focusing on the Association of Southeast Asian Nations (ASEAN), where various English varieties coexist with numerous ethnic languages. Moreover, Carpenter (n.d.) examines the importance of English in Japan and the high demand for English education, which has created opportunities for native English speakers. In the same context, Bezborodova and Radjabzade (2021) say that English has become the dominant language for academic purposes in Central Asia, and Canagarajah (2011), considers that translanguaging enables students to link their native languages with academic content. Lastly, Jörgensen et al. (2011) say that translanguaging is a bridge for linguistic differences.

The Effects of Different Translanguaging Strategies in the Classroom

The four strategies discussed in this literature review highlight first the important roles of class discussions and translanguaging in enhancing students' speaking abilities, increasing confidence, and encouraging active engagement in language learning analyzed by four authors (Aoyama, 2020; Elashhab, 2020; Ha et al., 2021; Sato, 2023). Second, four authors introduce vocabulary, especially through translanguaging and multilingual labels, showing that it helps students understand and retain words in both their first (L1) and second (L2) languages (Dougherty, 2021; Elashhab, 2020; Rodríguez, 2023; Nursanti, 2021). Next, one author talks about storytelling as a strategy that supports language development, social

interaction, and emotional growth, especially in children (Flynn et al., 2021). In this context, two authors support the importance of storytelling for children (Farantika et al., 2022; Satriani, 2019). Finally, two authors mention that multilingual environments foster greater language development, cultural understanding, and cross-linguistic practices, assisting students in navigating diverse linguistic contexts (Fuster & Bardel, 2024; Sibongile et al., 2024).

Teacher's Perception of Translanguaging

This section will cover teachers' perspectives on translanguaging, showcasing both positive and negative perspectives from different studies. Positive perceptions highlight how translanguaging challenges conventional teaching methods, supports multilingual and multimodal strategies benefits younger or lower-grade students, creates safe spaces, and encourage collaboration and integration (Andleeb et al., 2024; Karlberg & Eriksson, 2022; Lu & Zuo, 2023; Marrero-Colón, 2021; Puspitasari & Sugirin, 2024). On the other side, negative views point to issues like the excessive use of L1, feelings of guilt and doubts about its suitability for advanced learners, lack of linguistic focus, and pressure from institutions (Andleeb et al., 2024; Lu & Zuo, 2023; Puspitasari & Sugirin, 2024; Yuvayapan, 2019).

Student's Perception of Translanguaging

This part will focus on students' views on translanguaging, both positive and negative perspectives from different studies. Positive perceptions emphasize benefits such as saving time, warm classrooms, clarifying content, and the free expression of ideas (Chicherina & Strelkova, 2023; Kucukali & Koçbaş, 2021; Fang & Liu, 2020; Gren, 2022; Kucukali & Koçbaş, 2021; Tabatabaei, 2019; Wang & East, 2024). In contrast, negative perceptions reveal a more traditional scenario, with a negative reaction from teachers and considered as spontaneous, inauthentic, and unplanned (Aoyama, 2020; Kucukali & Koçbaş, 2021; Nguyen, 2022; Tabatabaei, 2019; Wang & East, 2024).

Problem statement and rationale

According to Marrero-Colón (2021), students who rely only on the language of instruction may need additional language assistance to understand content and complete assignments. She also mentions that in the case of multilingual students, benefit from using their various

language abilities to grasp material and follow directions. For this reason, the same author states that translanguaging offers the language support needed to adapt and tailor instructions, make content more accessible, respect and validates students' native languages and cultures, tap into their prior knowledge and enhance their background to succeed in learning a foreign language while validating their first language.

In this context, translanguaging may emerge as an alternative way to learn a second language while respecting the student's cultural background and L1. For this reason, the current project intends to analyze some strategies and perceptions from students and teachers towards translanguaging, taking into consideration different studies where this approach has been implemented. Then, this document can be useful for teachers who can decide on whether to use translanguaging in the classrooms. Owing to this fact, the objective of this literature review is to gather the impact of the translanguaging approach on English learning for elementary students. To guide this literature review, the following research questions have been developed to investigate the impact of the translanguaging approach on English learning for elementary students. These questions aim to examine how the translanguaging approach impacts elementary school <students in English learning, how translanguaging reported strategies influence students in acquiring English as a second language, specifically when speaking, and what teachers' and students' informed perceptions when using translanguaging in the classroom, along with its effectiveness and challenges.

Methodology

The research method for the study on the translanguaging approach to English learning for elementary students was based on a systematic review. In the words of Liberati et al. (2009), it can be described as a research approach and procedure used to identify and assess relevant studies, as well as to collect and analyze data from them. Furthermore, Snyder (2019) mentions that it focuses on identifying empirical evidence that aligns with established inclusion criteria to answer a specific research question or hypothesis. To ensure reliable data on this study, 24 articles were searched in different academic databases such as Google Scholar, Academic Google, Scielo, and university graduation articles. Moreover, most of the

key terms and combination words that were used to find the appropriate information were these: Translanguaging, Translanguaging speaking strategies, Translanguaging in elementary school, Translanguaging strategies for kids, and teachers' and students' perceptions on translanguaging.

As regards the criteria for this literature review, the studies were selected considering diverse aspects. First, the research methods for this study were mix-methods due to it consisting of qualitative and qualitative data with diverse types of interviews, questionnaires, surveys, and classroom observations. Second, all the articles were searched online due to their easy access and availability. Third, the studies have been published between the years 2018 and 2024, but most of them were found since the year 2020 and 2024. Fourth, the research data was empirical to ensure the collection of reliable outcomes regarding the application of translanguaging. Fifth, the studies analyzed were composed in English language since the study focused on EFL learning using translanguaging. Sixth, the gathered sources were based on the outcomes of using Translanguaging strategies in EFL contexts, especially when speaking. Also, the study collected teachers' and students' perceptions on the translanguaging approach. Finally, the age range of the participants involved mostly students in elementary school. However, in some cases, older groups were considered to provide a comprehensive collection of results.

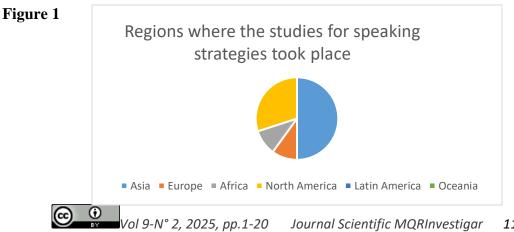
The following analysis encompassed the categorization of studies according to the reported effects of different Translanguaging strategies in the classroom, with an emphasis on speaking skills, mostly for children in elementary schools. In this context, the students and teachers came from diverse linguistic and cultural backgrounds. For this reason, the study showed a figure about where are the places that the majority of them come from. Additionally, this study focused on the students' and teachers' perceptions of translanguaging, providing insights into how teachers perceive the use of translanguaging, its effectiveness, and challenges in supporting language acquisition. At last, this review explored the students' perceptions towards Translanguaging, their comfort levels when using both their native language and English in the classroom, and the criticism about it.

Results

In this section, an analysis is conducted with a total of 24 chosen articles, written in English since the year 2018. To address the specific questions of this study, one figure and three tables were organized to prove the effects of the translanguaging approach on students' English learning. Figure one shows the regions where the studies come from. Then, the first table describes some strategies within the classroom and their impact. In this context, it answers the first specific question about how translanguaging reported strategies influence students in acquiring English as a second language. Then, the second and third tables show teachers' and students' perceptions of translanguaging responding to the second specific question about what are their informed perceptions in the classroom along with its effectiveness and challenges.

Regions where the studies for speaking strategies took place:

Figure 1 represents the regions where the strategies were analyzed for the current project. For this, 10 studies were chosen having the following results: five studies in Asia, three studies in North America, one study in Africa, one study in Europe, and there were no studies in Latin America or Oceania. The majority of the studies come from Asia and Europe, for instance, Canagarajah (2011), considers that translanguaging assists students in exploring their linguistic and cultural identities, especially in regions like South Asia where there are multiple languages, so this approach enables students to link their native languages with academic content. Additionally, Jörgensen et al. (2011) comment that translanguaging can be used as a means to bridge linguistic differences in multilingual countries like Switzerland, Belgium, and Spain, and can integrate different language groups in classrooms.



The Effects of Different Translanguaging Strategies in the Classroom

The next table presents the report effects of four different strategies implemented with the translanguaging approach. For this category, 10 studies were chosen since they show real examples carried out in the classroom with an emphasis on speaking.

Table 1

The Efects of Four Translanguaging Speaking Strategies in the Classroom								
Skill	Strategy	Effects	No. of studies	Author/Year	Country			
Speaking	Class discussions	Improves pronunciation, encourages participation and reinforces learning.	4	Aoyama (2020); Elashhab (2020); Ha et al. (2021); Sato (2023).	Japan, Saudi Arabia, Vietnam, Japan			
	Vocabulary introduction	Expands vocabulary repertoire and contextual understanding.	4	Dougherty (2021); *Elashhab (2020); Rodríguez (2023); Nursanti (2021)	United States, Saudi Arabia, Indonesia, United States			
	Storytelling	Helps with language and social development. Fosters connections with other children and emphasizes key ideas.	1	Flynn et al. (2021)	United States			
	Language development in multilingual settings	Develops more than one language and practices the full linguistic repertoire.	2	Fuster & Bardel (2024); Sibongile et al. (2024)	Sweden, South Africa			

Table 1 provides an investigation of the effects of four different translanguaging speaking strategies in the classroom, based on studies conducted in different regions mostly Asia. The strategies explored were (1) class discussions, (2) vocabulary introduction, (3) storytelling, and (4) language development in multilingual settings.

Class Discussions

According to Elashhab (2020) and Ha et al. (2021), class discussions have been shown to enhance pronunciation, encourage active participation, and reinforce learning. These authors state that students become more confident in speaking, practice their language skills more effectively, and strengthen their linguistic abilities in a collaborative environment. Moreover, Aoyama (2020) conducted different studies to investigate the effect of translanguaging on students' speaking skills and affirms with the study that the liaison of students' linguistic resources to communicate in two languages is normal and inevitable. Sato (2023) mentions that the use of L1 tends to raise the willingness to communicate among students. Moreover, this author mentions that translanguaging happens unconsciously, and its use increases speaking fluency and confidence, although at the beginning could be as a result of a lack of English ability and lack of confidence, it can be used to improve pronunciation, participation, and learning.

Vocabulary Introduction

This strategy, in the words of Nursanti (2021), aims to expand students' vocabulary and improve the understanding of language in context and mentions the importance of synonyms for a better comprehension of terms. Dougherty (2024) emphasizes the use and introduction of vocabulary for multilingual labels. Elashhab (2020) mentioned that translanguaging tactics might facilitate vocabulary and language learning for students. As regards the effects, Rodríguez (2023) emphasizes the positive reinforcement for students when they want to use their L1, showing the importance of knowing how to say some words in their L2 when using translanguaging and how this can help students make connections between L1 and L2 by being exposed to the new vocabulary.

Storytelling

According to Flynn et al. (2021), storytelling positively impacts both language and social development. It helps students build connections with others and reinforces key learning points. This strategy encourages social interactions and improves students' ability to understand and express language through storytelling. For instance, in this case, other authors mention the benefits that this strategy has for children. Farantika et al. (2022) establish that in early childhood, storytelling aims to foster good behavior and impart essential values to children, supporting their overall cognitive, emotional, and physical growth. Moreover, Satriani (2019) noted that students' literacy skills improved, that the quality of the books contributes to sparking their imagination and that there is a noticeable increase in students' vocabulary, reading awareness, and overall interest.

Language Development in Multilingual Settings

Fuster and Bardel (2024) state that this approach encourages the use of multiple languages, letting students to practice their full linguistic repertoire and involve in cross-linguistic practices. Moreover, Sibongile et al. (2024) mention that this approach aids students develop a more comprehensive understanding of linguistic and culture.

Teacher's Perception of Translanguaging

This category presents the teachers' perceptions of the use of translanguaging. For this section, six studies were selected showing teachers' positive and negative perceptions

Table 2

Teachers' Perceptions of Translanguaging						
	Teachers' perceptions	No. of studies	Author/Year			
Positive Perceptions	Challenge traditional views	1	Andleeb et al. (2024)			
	Multilingual and multimodal practices	2	*Andleeb et al. (2024); Lu & Zuo (2023)			
	Young learners / Lower grades	1	Karlberg & Eriksson (2022)			
	Facilitating factors/Safe spaces	2	*Karlberg & Eriksson (2022); Puspitasari & Sugirin (2024)			
	Integration/Collaboration	1	Marrero-Colón (2021)			
Negative Perceptions	Overuse of L1	2	Andleeb et al. (2024); Lu & Zuo (2023)			
	Sense of guilt	1	*Lu & Zuo (2023)			
	Not for advanced learners	1	*Puspitasari & Sugirin (2024)			
	Lack of linguistic aspects	2	*Puspitasari & Sugirin (2024); Yuvayapan (2019).			

Pression from institutions

1

*Yuvayapan (2019).

*Articles are considered in more than one category

Table 2 shows different teachers' perceptions of translanguaging. On the one hand, Andleeb et al. (2024) suggest that translanguaging challenges conventional perspectives on language and can empower students, encouraging their active engagement in the learning process. Lu and Zuo (2023) demonstrate that translanguaging can capture diverse multilingual and multimodal practices that enable effective comprehension, and classroom communication seems to be smoother. In the same context, Andleeb et al. (2024) recognize diverse linguistic and cultural resources. Moreover, Karlberg and Eriksson (2022) mention that teachers rely more on students' L1 in lower grades or when they are young learners since translanguaging draws on learners' language repertoire, and when studying the first levels, students receive more instruction in their L1. Additionally, Puspitasari and Sugirin (2024) claim that this approach may create safe spaces as students can practice their English abilities and at the same time use their L1 and get a better understanding of the subject they are being taught. Also, Karlberg and Eriksson (2022) refer to translanguaging as a facilitating factor that can be a helpful tool that provides support when learning a new language. At last, Marrero-Colón (2021) states that this approach enables the inclusion and cooperation of language learners at every proficiency level, speakers who might be native multilingual or advanced, and speakers who are at the beginning of language acquisition.

Nevertheless, there are also negative views on the use of translanguaging. Lu and Zuo (2023) mention that students may overuse their mother tongue, and some may feel guilty because they favor the benefits that the monolingual approach has in foreign languages. In the same aspect, Andleeb et al. (2024) say that not getting enough exposure to the language of teaching could hinder the development of the target language and affect their academic performance. Furthermore, Puspitasari and Sugirin (2024) show as negative points the lack of linguistic aspects in which this approach can be appropriate for beginners but not for advanced learners and the idea that students may feel lazy because they prefer to speak in their L1. In the same context, Yuvayapan (2019) indicates that this approach supposes a "barrier to ensure successful foreign language teaching" (p. 691). The same author states that institutional pressures push teachers to focus on an English-only environment and discourage the incorporation of translanguaging in teaching methods.

Students' Perceptions of Translanguaging

This category analyzes the students' perceptions when using translanguaging. For this segment, eight studies were selected showing positive and negative learners' perceptions.

Table 3

Students' Perceptions of Translanguaging							
Students' perceptions		No. of studies	Author/Year				
	Time-saving	2	Chicherina & Strelkova (2023); Kucukali & Koçbaş (2021)				
Positive	Warm classroom	1	Fang & Liu (2020)				
perceptions	Clarify Content	3	Gren (2022); *Kucukali & Koçbaş (2021); Tabatabaei (2019)				
	Express ideas freely	1	Wang & East (2024)				
	Conservative view	3	Aoyama (2020); Nguyen (2022); *Tabatabaei (2019)				
Negative	Obstacle	2	*Kucukali & Koçbaş (2021); *Tabatabaei (2019)				
perception	Teachers' negative reaction	1	*Tabatabaei (2019)				
	Inauthentic / Spontaneous / Unplanned	1	Wang & East (2024)				

^{*}Articles are considered in more than one category

Table 3 illustrates the results of students' perceptions of translanguaging. Data indicates the positive and negative insights among learners with a total of eight studies analyzed. On the positive side, Chicherina and Strelkova (2023) mention that the mother tongue should not be banned or excluded because it may outcome in productive time sessions for introducing and explaining hard language material to understand. In the same terms, Kucukali and Koçbaş (2021) say that it can save time and be more efficient. Fang and Liu (2020), Green (2022), and Tabatabaei (2019) state that translanguaging provides a warm environment for students,

helps clarify information and gain a complete understanding of tasks, and with this approach, students understand much more the contents of the new language. In similar terms, Kucukali and Koçbaş (2021) state that this avoids misunderstandings. Finally, Wang and East (2024) say that learners can express their ideas and identities on a freeway using all their current language skills or feeling stressed by the pressure to write in a new language, similar to a native speaker.

However, students also have negative perceptions of translanguaging. For instance, Aoyama (2020) indicates that many participants manifested concern about the use of their first language in English classes due to their beliefs focusing mainly on the use of English exclusively. Nguyen (2022) manifests that some students are in favor of a "conservative view against the inclusion of other languages" (p. 329). Tabatabaeil (2019) mentions it is a waste of time to use L1 due to the belief that students can learn better if they use only English. The same author states that translanguaging should not be banned, but discouraged; and that this approach is not necessarily a strategy. In the same context, Kucukali and Kocbas (2021) argue that if teachers use L1 excessively, students may think mostly in L1 and neglect L2. Tabatabaei (2019) also refers that student have the belief that teachers may react negatively if they use their L1. In addition, Wang and East (2024) state in their study that students have the belief that translanguaging is not necessary, is not expected to be, and is also not authentic.

Discussion

This section has the purpose to analyze the effects of the translanguaging approach on English learning with elementary students. In this context, two main questions were studied, the first one on how translanguaging reported strategies influence students in acquiring English language as a second language, particularly in speaking, and the other aspect examines teachers' and students' informed observations on using translanguaging in the classroom, including its effectiveness and challenges.

First, the section covers various studies from different countries and regions, with a particular emphasis on Asia and its multilingual contexts. Regions such as Japan, Saudi Arabia, Vietnam, the United States, Indonesia, Sweden, and South Africa were revealed. It can be appreciated that Asia is the region where more studies are conducted, and this could be for

several reasons. For example, Bolton (2008) suggests a framework for classifying English usage in Asia, taking into account historical factors, particularly in former British colonies countries that adopted English as a second language. He also emphasizes the bilingual context that has emerged, where individuals comfortably switch between English and local languages in daily interactions.

Low and Ao (2018) study the linguistic landscape of Southeast Asia, focusing on the Association of Southeast Asian Nations (ASEAN), where there is a rich linguistic diversity, with emerging English varieties coexisting alongside many ethnic languages. Carpenter (n.d.) examines the role of English in Japan, where it has been a significant part of education since the 1950s; the demand for English education has created opportunities for native English speakers and highlighted the economic value placed on English proficiency. Bezborodova and Radjabzade (2021) emphasize the prominent role of English in Central Asia, where it has become the preferred language for research and academic communication. In this context, it is noticed that most of the studies consider Asia as the main region, not only for historical factors and the importance of English in the daily citizens' lives, but because of the multilingual aspect. There are many countries with a huge cultural and linguistic diversity and English is supposed to work as the main objective, but without leaving behind the people's cultural background and heritage. Rather, it reinforces the peoples' identities and provides a better understanding of the new language at the time they keep their L1.

Next, four strategies were analyzed (1) class discussions, (2) vocabulary introduction, (3) storytelling, and (4) language development in multilingual settings. As the study shows, each one of them has clear benefits. The first strategy, class discussion, enhances pronunciation, encourages active participation, and reinforces learning (Aoyama, 2020; Elashhab, 2020; Ha et al., 2021; Sato, 2023). The second strategy, vocabulary introduction, highlights translanguaging through vocabulary introduction as relevant to students' vocabulary repertoire, contextual understanding, and its applicability in real-world scenarios (Dougherty, 2021; Rodríguez, 2023; Nursanti, 2021). The third strategy, storytelling, focuses not only on language development but also on social growth, enabling students to build connections and reinforce key ideas (Flynn et al., 2021). The final one, language development in multilingual

settings, aims not only in the development of more than one language but also in the integration of the full linguistic repertoire of students (Fuster & Bardel, 2024; Sibongile et al., 2024).

In the strategy section, it can be seen the clear benefits that each one of them has on the students. Nevertheless, it is crucial to consider how to apply them for improved outcomes or how these can be mixed. For example, class discussions can be linked to storytelling due to children may not elaborate on complex discussions. Rather, they can discuss the meaning of stories with short sentence structure which at the same time connects with other students' ideas and emphasizes key points. That is why, it is relevant to know how to conduct these strategies during the class.

Something unexpected was the narrow focus of the storytelling strategy because there were not many of them, and there were not many of them in the last years (Flynn et al., 2021). The same happens with the geographical diversity aspect. More studies on storytelling in diverse countries can provide a clearer understanding of the universal applicability of these strategies, especially in countries in Latin America because they were not found. Moreover, these strategies could compare their effectiveness across age groups and learning environments. Finally, long-term studies could help identify which strategies can lead to better language development and academic success. As regards vocabulary introduction and language development in multilingual settings, these seem to be valuable for students who might struggle with speaking due to language barriers, and it also provides a safe and supportive space to practice without the pressure of using only English, especially for beginners.

The perceptions of both teachers and students are crucial to understanding the effectiveness of translanguaging. The studies showed an increased acceptance of translanguaging among teachers, particularly in contexts that support multilingual practices. However, there is still some resistance, especially in more traditional educational settings. For instance, an unexpected outcome was the discovery of a sense of guilt among students when using their L1 in translanguaging (Lu & Zuo, 2023). The authors point to a challenge that needs to be addressed for effective translanguaging. Another finding was that translanguaging may not be suitable for advanced learners (Puspitasari & Sugirin, 2024). This aspect can challenge

the belief that translanguaging could be for all learners, suggesting that other methods might be more effective for those with advanced proficiency.

As some recommendations, teachers should help students overcome the sense of guilt associated with using their L1 or at least this idea of feeling guilty, which may appear due to a lack of knowledge of this approach. Further studies should explore how translanguaging affects advanced learners with alternative methods that are more appropriate. Another important factor is institutional support, which may consider more flexible language policies that support translanguaging with more professional development strategies for teachers.

This analysis also focuses on students' perceptions of translanguaging across diverse educational settings. The findings indicate that while students generally value the flexibility that translanguaging provides, there are some concerns like teacher reactions and its potential effect on immersion in the target language. For example, one of the discoveries demonstrated that some students have a more conservative view, feeling hesitant to use translanguaging in the classroom. This was unexpected as translanguaging is often seen as a progressive inclusive teaching method. Another surprising result was that some students viewed translanguaging as an obstacle to learning the target language because they felt it interfered with their language development.

In summary, the effect of translanguaging approach on English learning for elementary students is optimal and beneficial mainly in multilingual settings due to this approach enables students to learn a new language in a safer space without leaving their cultural identities. However, for this purpose, it is important to consider some strategies that permit learners to develop their complete linguistic repertoire and potential especially when speaking. For example, class discussions along with storytelling for kids seem to be beneficial, but it is relevant to study how to implement them properly.

At last, teachers' and students' insights of translanguaging approach reflect positive and negative aspects. On the positive side, it challenges traditional methods, supports multilingual practices, and emphasizes a safe and collaborative classroom environment. Moreover, translanguaging is valued for its time-saving benefits, its ability to create a warm classroom environment, its role in clarifying content, and its potential to allow students to express ideas freely. However, there are also concerns about the overuse of L1, along with

emotional barriers like guilt, and challenges with advanced learners and linguistic focus. This may suppose significant obstacles to its application along with the sense of inauthenticity that some students perceive. For this, further research can explore the emotional aspects of provide teacher training, develop structured translanguaging, frameworks translanguaging, research its effectiveness for advanced learners, inform the students about this approach so they can know is valid and authentic, provide institutional support for its successful implementation, and conduct more research into its long-term effects.

Conclusion

In conclusion, the translanguaging approach has demonstrated to be a successful tool in enhancing English language learning for elementary students, particularly in developing speaking skills. By allowing students to draw on their entire linguistic repertoire, it can be said that this approach encourages a more inclusive and collaborative learning field, allows multilingual and multimodal practices, provides a secure space for students, and challenges traditional views. It is also supposed to be more practiced, studied, and applied in places with multilingual scenarios or where there are many different languages like Asia or Europe. Furthermore, teachers' perceptions focus on the benefits of translanguaging in helping student engagement, comfort, and confidence during speaking activities. Additionally, students report feeling and expressing themselves more freely because the contents are clearer and the classroom becomes a warm environment for themselves when they can use both their first language and English. Overall, the translanguaging approach not only supports language learning, but also nurtures a productive attitude toward learning, making it a promising strategy in elementary education. However, there are still some challenges to face, for example, the support from institutions to the teachers, the conservative view, or the lack of information about translanguaging which could lead to a sense of guilt. More studies could be held to focus on the long-term to figure out at what ages and contexts it is more useful, and more studies could be carried out in regions as Latin America.

References

Andleeb, N., Salahuddin, A., & Ajmal, F. (2024). Teachers' Perceptions of Translanguaging as a Pedagogical Tool in Multilingual Education. Annals of Human and Social Sciences, 5(1), 51-53. https://doi.org/10.35484/ahss.2024(5-I)05

https://www.researchgate.net/publication/378212876_Teachers'_Perceptions_of_Translang uaging as a Pedagogical Tool in Multilingual Education Corresponding Author

Aoyama, R. (2020). Exploring Japanese high school students' L1 use in translanguaging in the communicative **EFL** classroom. TESL-Ej, 23(4), 24-37. https://eric.ed.gov/?id=EJ1242655

Baker, C. (2011). Foundations of bilingual education and bilingualism (5th ed.). Multilingual Matters.

https://books.google.com.ec/books?hl=es&lr=&id=HAwxBQAAQBAJ&oi=fnd&pg=PR6 &ots=TdwcYL5miF&sig=Cm6m3mFy1gXaJopWsIZmVBjK3SA&redir_esc=y#v=onepag e&q&f=false

Bezborodova, A., & Radjabzade, S. (2021). English in higher education in the Kyrgyz Republic, Tajikistan, and Uzbekistan. World Englishes, *41*(1), 72–91. https://doi.org/10.1111/weng.12556

Bolton, K. (2008). English in Asia, Asian Englishes, and the issue of proficiency. English Today, 24(2), 3–12 https://doi.org/10.1017/s026607840800014x

Canagarajah, S. (2011). Codemeshing in academic writing: Identifying teachable strategies of translanguaging. The Modern Language Journal, 95(3), 401-417. DOI:10.1111/j.1540-4781.2011.01207.x

https://www.researchgate.net/publication/230359961 Codemeshing in Academic Writing Identifying Teachable Strategies of Translanguaging

Carpenter, W. (n.d). Japan and English: Communication and Culture, History and Power. https://www.google.com/u%20rl?sa=t&source=web&rct=j&opi=89978449&url=https://cor e.ac.uk/download/pdf/72791438.pdf&ved=2ahUKEwj7ppum3OGFAxWrU0EAHbQFCPY 4ChAWegQICRAB&usg=AOvVaw3VMmgtngD1A96AyU5dFTzG

Cenoz, J. (2013). The influence of bilingualism on third language acquisition: Focus on multilingualism. Language Teaching 46, 71–86. DOI:10.1017/S0261444811000218

https://www.researchgate.net/publication/231768854_The_influence_of_bilingualism
m_on_third_language_acquisition_Focus_on_multilingualism

Chicherina, N., & Strelkova, S. (2023). Translanguaging in English Language Teaching: Perceptions of Teachers and Students. *Education Sciences*, 13(1), 2-13. https://doi.org/10.3390/educsci13010086 https://www.mdpi.com/2227-7102/13/1/86

Cummins, J. (2007). Rethinking monolingual instructional strategies in multilingual classrooms. *The Canadian Journal of Applied Linguistics* 10(2), 221–40. https://www.researchgate.net/publication/228368309 Rethinking Monolingual Instruction al Strategies in Multilingual Classrooms

Dougherty, J. (2021). Translanguaging in Action: Pedagogy that Elevates. Western Oregon University. *ORTESOL Journal*, *38*, *19-32*. https://eric.ed.gov/?id=EJ1305313
https://eric.ed.gov/fulltext/EJ1305313.pdf

Elashhab, S. (2020). The Impact of Translanguaging on the EFL Competence Development of Arabic Speaking Learners. English Language Center. *Asian EFL Journal*. 27. 393-413. https://rb.gy/n18sp8
https://www.researchgate.net/profile/Seham-

Elashhab/publication/343935455 The Impact of Translanguaging on the EFL Compete nce Development of Arabic Speaking Learners/links/5f48f879a6fdcc14c5d8178f/The-Impact-of-Translanguaging-on-the-EFL-Competence-Development-of-Arabic-Speaking-Learners.pdf

European Commission: Directorate-General for Education, Youth, Sport and Culture. (2007). High level group on multilingualism: final report. Publications Office of the European Union. P.6 https://op.europa.eu/en/publication-detail/-/publication/b0a1339f-f181-4de5-abd3-130180f177c7

https://atdle.org/wp-content/uploads/2018/07/translaguaging-origins_g.lewis2012.pdf
Fang, F., & Liu, Y. (2020). Using all English is not always meaningful': Stakeholders' perspectives on the use of and attitudes towards translanguaging at a Chinese university.

Lingua, 247, 102959. P.2-32 https://doi.org/10.1016/j.lingua.2020.102959

https://www.sciencedirect.com/science/article/abs/pii/S0024384120301674

Farantika, D., Muzayin, A., Purwaningrum, D. (2019). The Benefits and Purpose of Storytelling for Early Childhood Education. *SINDA*. 2(2). https://ojs.unublitar.ac.id/index.php/sinda/article/view/497/421

Flynn, E., Hoy, S., Lea, J., & García, M. (2021). Translanguaging through story: Empowering children to use their full language repertoire. *Journal of Early Childhood Literacy*, 21(2), 283-309. https://doi.org/10.1177/1468798419838569

https://www.researchgate.net/publication/332350870_Translanguaging_through_story_Empowering_children_to_use_their_full_language_repertoire

Fuster, C. & Bardel, C. (2024). Translanguaging in Sweden: A critical review from an international perspective. *Elsevier*. *121*(0346-251X), 1-19. https://doi.org/10.1016/j.system.2024.103241

https://www.sciencedirect.com/science/article/pii/S0346251X2400023X

García, O. (2009). *Bilingual education in the 21st century: Global perspectives*. Blackwell. https://www.sil.org/system/files/reapdata/14/55/96/14559698851658160944954059649424
6254342/SILEBR_2010_007.pdf

Garcia, O. and Wei, L. (2014). Translanguaging: Language, Bilingualism, and Education. Palgrave Macmillan. New York, NY: Palgrave MacMillan, 162 pp. *Bilingual Research Journal*, *37*(3), 366–369. https://doi.org/10.1080/15235882.2014.965361

García, O., and Lin, A.M.Y. (2017). Translanguaging in Bilingual Education. In: García, O., Lin, A., May, S. (Eds) *Bilingual and Multilingual Education. Encyclopedia of Language and Education*. Springer, Cham. https://doi.org/10.1007/978-3-319-02258-1_9

García, O., N. Flores & H. Homonoff Woodley. 2012. Transgressing monolingualism and bilingual dualities: Translanguaging pedagogies. In A. Yiakoumetti (ed.), Harnessing linguistic variation to improve education. Bern: Peter Lang, 45-76. https://www.researchgate.net/publication/320700598_From_'languaging'_to_'translanguaging'_ng'_Reconsidering_foreign_language_teaching_and_testing_through_a_multilingual_lens

Gren, L. (2022). Translanguaging in ELT Classrooms: A Systematic Literature Review of Regarding Translanguaging. **Effects** and **Perceptions** Linnaesu University. https://www.diva-portal.org/smash/get/diva2:1637184/FULLTEXT01.pdf

Ha, T., Phan, N., & Anh, H. (2021). The importance of translanguaging in improving fluency in speaking ability of non-English major sophomores. Asia Association of Computer-Assisted Language Learning, 2(3), 34-35. https://doi.org/10.2991/assehr.k.211224.032

Jørgensen, J. N., Karrebæk, M. S., Madsen, L. M., & Møller, J. S. (2011). Polylanguaging in Superdiversity. Diversities, 13(2), 23–37. https://doi.org/10.58002/qzt0-sk80

https://newdiversities.mmg.mpg.de/fileadmin/user_upload/2011_13-02_art2.pdf

Karlberg, M. & Eriksson, J. (2022). Teachers' Perceptions of Translanguaging in English Teaching in Sweden. Malmo University. Cultures-Language-Media. https://www.diva-portal.org/smash/get/diva2:1653251/FULLTEXT02

Kucukali, E., & Koçbaş, D. (2021). Benefits and issues of translanguaging pedagogies on language learning: Students' perspective. Turkish Online Journal of English Language **Teaching** (TOJELT), 6(3),55-85.

http://tojelt.com/Makaleler/1868821510_Emel.K%C3%BC%C3%A7%C3%BCkali.%20T OJELT.template.pdf

Lewis, G., Jones, B., & Baker, C. (2012). Translanguaging: origins and development from school to street and beyond. Educational Research and Evaluation, 18(7), 641-654. https://doi.org/10.1080/13803611.2012.718488

https://atdle.org/wp-content/uploads/2018/07/translaguaging-origins_g.lewis2012.pdf

Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P. A., Moher, D. (2009). The PRISMA statement for reporting systematic reviews and metaanalyses of studies that evaluate health care interventions: Explanation and elaboration. Annals of Internal Medicine, 151(W-65), e1-e34. https://doi.org/10.7326/0003-4819-151-4-200908180-00136

Lin, A. M. Y. (2013) Classroom code-switching: Three decades of research. Applied Linguistics

Review, 4(1), 195-218. https://doi.org/10.1515/applirev-2013-0009

Lin, A. M. (2020). Introduction: Translanguaging and translanguaging pedagogies. In Translanguaging in Multilingual English Classrooms. Springer. https://atdle.org/wpcontent/uploads/2018/07/translaguaging-origins_g.lewis2012.pdf

Liu, W. (2022). Evaluate the Importance of Translanguaging in Language Learning Classes. Atlantis Press SARL. http://www.doi.org.10.2991/assehr.k.220131.081 https://www.atlantis-press.com/proceedings/icela-21/125969855

Low, E. L., & Ao, R. (2018). The spread of English in ASEAN: policies and issues. *RELC* Journal, 49(2), 131–148. https://doi.org/10.1177/0033688218782513

Lu, X., & Zuo, Y. (2023). Descansamos-xiuxiamos: a case study of a teacher's translanguaging practices and attitude in an L3 Spanish audio-oral classroom at a Chinese university. Porta Linguarum An International Journal of Foreign Language Teaching and 63–81.https://doi.org/10.30827/portalin.viVIII.29214 Learning, (VIII), https://digibug.ugr.es/bitstream/handle/10481/91805/Art%2b4-

ok.pdf?sequence=1&isAllowed=y

Marrero-Colón, M. (2021). Translanguaging: Theory, Concept, Practice, Stance, or All of Center Linguistics. https://www.cal.org/wpthe Above? CAL. for Applied content/uploads/2022/05/TranslanguagingTheoryConceptPracticeStance%E2%80%A6orAl loftheAbove CALCommentary.pdf

Nguyen, T. N. T. (2022). A Review of Studies on EFL Teachers' and Students' Perceptions of Tranglanguaging as a Pedagogical Approach. International Journal of TESOL & Education, 2(3), 324-331. https://doi.org/10.54855/ijte.222322

Nordin, N. M., Ali, F. D. R., Zubir, S. I. S. S., & Sadjirin, R. (2013). ESL Learners' reactions towards

codeswitching in classroom setting. Procedia-Social and Behavioral Sciences, 90, 478-487. https://doi.org/10.1016/j.sbspro.2013.07.117

Nursanti, R. R. (2021). Classroom Strategies through Translanguaging for Multilingualism Students. English 17–27. Learning *Innovation* (englie), 2(1),https://doi.org/10.22219/englie.v2i1.14653

Puspitasari, P. & Sugirin, S. (2024). Translanguaging Used in Speaking Class of Non-Formal Education Program: Students' and Teachers' Perception. International Journal of Contemporary Studies in Education. 03(01) 13-21. https://doi.org/10.56855/ijcse.v3i1.885 https://journals.eduped.org/index.php/ijcse/article/view/885/606

Reyes, I. (2004). Functions of Code Switching in Schoolchildren's Conversations. Bilingual Research Journal. 28(1), 77-98. https://childes.talkbank.org/access/Biling/0docs/Reyes.pdf Rodríguez, A. (2023). Translanguaging strategies for the classroom. Faculty of California State Stanislaus. University.

https://scholarworks.calstate.edu/downloads/7p88cp90r#:~:text=There% 20are% 20many% 2 Odifferent%20strategies, characters%2C%20and%20multilingual%20words%20walls

Sato, R. (2023). Japanese EFL speakers' willingness to communicate in L2 conversations: The effects of code-switching and translanguaging. TESL-EJ, 27(3), https://files.eric.ed.gov/fulltext/EJ1409870.pdf

Satriani, I. (2019). Storytelling in teaching literacy: Benefits and challenges. English Review: Journal of English Education, 8(1), 113-120

https://journal.uniku.ac.id/index.php/ERJEE/article/view/1924/1656

Schimd, U. J. (2015). Multilingualism. International Encyclopedia of the Social & Behavioral Sciences (Second Edition). Elsevier, (2) 65-71. https://doi.org/10.1016/B978-0-08-097086-8.53035-9

https://www.sciencedirect.com/science/article/pii/B9780080970868530359

Sibongile, J., Nkidi, C., Phatudi, Matshediso R. (2024). Translanguaging as a strategy for navigating multilingualism in peri-urban preschool classrooms. South African Journal of Childhood Education. *14*(1), 6-10. https://doi.org/10.4102/sajce.v14i1.1478 https://www.researchgate.net/publication/383188271_Translanguaging_as_a_strategy_for_ navigating multilingualism in peri-urban preschool classrooms

Singleton, David & Colin J. Flynn. 2022. Translanguaging: A pedagogical concept that went wandering. *International* Multilingual *16*(2). 136–147. Research Journal https://doi.org/10.1080/19313152.2021.1985692

Stathopoulou M. (2016). From languaging to translanguaging: Reconsidering foreign language teaching & testing through a multilingual lens. In Mattheoudakis M&Nicolaidis K (Eds). Selected Papers on Theoretical & Applied Linguistics, 21 759-774. Aristotle University of Thessaloniki.

https://www.educantabria.es/documents/39930/448695/STATHOPOULOU.FROM_LANG_UAGING_TO_TRANSLANGUAGING_INGL%C3%89S.pdf/60d42114-df4e-47b6-024a-226f7e40d8c4?t=1638186937228

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333–339. https://doi.org/10.1016/j.jbusres.2019.07.039
Tabatabaei, R. (2019). *Translanguaging in ESL classrooms in Sweden:*from the students' point of view. Stockholms Universitet. Department of English. Individual Research Project (EN04GY), English Linguistics. https://www.diva-portal.org/smash/get/diva2:1387709/FULLTEXT01.pdf

Tsokalidou, R. & Skourtou, E. (2020). Translanguaging as a culturally sustaining pedagogical approach: Bi/multilingual educators' perspectives. Inclusion, Education, and translanguaging.

Springer.

https://library.oapen.org/bitstream/handle/20.500.12657/41724/2020_Book_InclusionEducationAndTranslang.pdf?sequence=1#page=218

Wang, D. & East, M. (2024). Integrating translanguaging into assessment: students' responses and perceptions. *Applied Linguistics Review*, 15(5), 1911-1937. https://doi.org/10.1515/applirev-2023-0087

https://www.degruyter.com/document/doi/10.1515/applirev-2023-0087/html#APA

Williams, C. (1994). Arfarniad o Ddulliau Dysgu ac Addysgu yng Nghyd-destun Addysg Uwchradd Ddwyieithog: An evaluation of teaching and learning methods in the context of bilingual secondary education. [Unpublished doctoral thesis, University of Wales, Bangor]. Yuvayapan, F. (2019). Translanguaging in EFL classrooms: Teachers' perceptions and practices. *Journal of Language and Linguistic Studies*, *15*(2), 690-691. https://doi.org/10.17263/jlls.586811

https://www.researchgate.net/publication/334269496 Translanguaging in EFL classroom

s_Teachers'_perceptions_and_practices

Conflicto de intereses:

Los autores declaran que no existe conflicto de interés posible.

Financiamiento:

No existió asistencia financiera de partes externas al presente artículo.

Agradecimiento:

N/A

Nota:

El artículo no es producto de una publicación anterior.