



Code-switching and Language-mixing among the AFL students of Chennai: Influence of Mother Tongue on the Use of Arabic as the Second Language

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Abstract

Issues surrounding the use of foreign languages and mother tongues (code-switching) in language classrooms have garnered significant research interest. This study explores the factors driving code-switching among students and teachers during various phases of interaction in an Arabic as a Foreign Language (AFL) classroom. The investigation focuses on mother tongue interference and its impact on learning Arabic as a second language at The New College, Chennai, India. Identifying these challenges is essential to address the needs of students striving to master Arabic effectively. Using a quantitative survey method, the study analyses written examination scripts from high-performing, average, and low-performing students. The tests assess grammar, spelling, sentence structure, and punctuation. Data were analyzed using descriptive statistics, with tools like Microsoft Excel and SPSS used to calculate the percentage and frequency of language errors. The findings revealed four major error types: grammar (49%), spelling (24.4%), sentence structure (22.2%), and punctuation (4.4%). These results underline how interference from the Tamil mother tongue influences students' Arabic learning. The study highlights the need for tailored instructional strategies to address language errors stemming from native-language interference. By understanding the specific areas where students struggle, educators can better facilitate their language acquisition. The research underscores the importance of considering the linguistic background of learners in second language instruction and offers recommendations to enhance teaching methodologies, ultimately improving students' proficiency in Arabic.

Keywords: Mixing, AFL, Arabic Language, Tamil Language, Second Language

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Introduction

As linguistic globalization increasingly shapes contemporary society, many speech communities are becoming multilingual, leading to a prevalent contact between languages. This has rendered code-switching a common occurrence, especially in bilingual, multilingual, and multicultural contexts. Due to the diverse linguistic backgrounds of students and teachers, code-switching is frequently observed in foreign language classrooms. Bilinguals and multilinguals tend to utilize multiple language resources, enabling effective communication across various contexts, despite differing proficiency levels in each language (Lorenz et al., 2021); (Šifrar Kalan et al., 2024). This dynamic allows them to navigate their experiences using multiple languages, creating a unique communication style distinct from that of monolingual speakers. Language mixing is a term used to describe the practice of mixing more than one language (Pratama, 2022). The phenomenon of language mixing or the influence of foreign languages in everyday language use is relevant in various contexts of second language learning.

This is a challenge faced by many students learning a second language, particularly if their mother tongue differs from the language being studied. Code-switching continues to captivate the interest of sociolinguists. Although the general perception of code-switching may be negative, it occurs frequently in practice. Teachers of Arabic as a foreign language often express their reluctance to engage in code-switching for various reasons, often insisting that only the target language should be utilized in the classroom. This study specifically examines students' attitudes toward code-switching in the context of learning Arabic as a foreign language at a local college in Chennai, Tamil Nadu. Data were collected through observations, questionnaires, and interviews. Each student's language use was recorded, transcribed, and subsequently analyzed to understand the functions of code-switching. The results revealed that students do engage in code-switching in the language classroom, despite their assertions to the contrary. Analysis indicated that, in many instances, teachers employed code-switching for pedagogical purposes.

The term "code" refers to a language or language variety. Since the 1950s, code-switching has emerged as a captivating topic in discussions of bilingual and multilingual speech communities. Generally, experts define code-switching as the alternating use of two or more languages within a single utterance or conversation. (Beatty-Martínez et al., 2020), note that code-switching can occur between turns of different speakers or even within a single turn, and can manifest within a single utterance. Understanding the motivations and functions behind code-switching is essential for the analysis of this linguistic phenomenon. Utterances containing code-switching maintain discourse unity, regardless of the languages involved. In essence, when switching occurs within a sentence, elements from different languages are typically integrated in a cohesive manner. Code-switching can be classified as either intersentential or intrasentential; intersentential involves switching between languages between sentences, while intrasentential occurs within the same sentence, ranging from single morphemes to entire clauses.

Globalization and technology have led to greater interaction among individuals from different cultural and linguistic backgrounds. This often results in the influence of foreign languages, such as Arabic and Tamil, in second language use. This influence can be seen in various aspects, including vocabulary, grammar, and sentence structure. The influence of foreign languages on second language use can lead to language mixing or errors that reflect adaptations to changes in the environment (Jeffrey Kihob & Hj. Mahali, 2020). In the context of Arabic language learning, the influence of Tamil in terms of grammar, sentence structure, or word usage may occur due to the differences between the two languages. Therefore, in teaching and learning, efforts to understand and address the influence of the mother tongue need to be made so that students can master Arabic more effectively.

Many researchers believe that the first language or mother tongue can influence the acquisition of a second language (Derakhshan & Karimi, 2015). This may occur due to several factors. The aspect of language transfer is an important factor in the influence of the first language on the second

language. The phonetic system, grammar, and vocabulary in the first language can be transferred or applied to the second language, which may result in errors or different language patterns (Özçelik, 2018). Effective methods for teaching a second language must consider the influence of the first language and help students overcome potential barriers that may arise (Haq, 2023). Social environment also plays a role in influencing second language acquisition. If individuals are in an environment where the first language is prioritized, they may tend to use the first language more often even when communicating in the second language.

Additionally, personal factors such as motivation and self-confidence can also influence how an individual practices the second language. Individuals with high motivation and self-confidence will find it easier to overcome first language barriers and quickly assimilate into the second language. Overall, understanding the influence of the first language on the second language is crucial for effective second language learning. Teachers and students need to recognize these factors and seek ways to optimize second language acquisition without neglecting the first language as part of an individual's linguistic and cultural identity. The objectives of this study are to:

1. Identify the types of mother tongue mixing in the use of the second language (Arabic) by the New College students, Chennai, India.
2. Assess the influence of mother tongue mixing (Tamil) on the errors in the second language writing of the students.
3. Explore effective learning strategies or approaches to overcome or reduce mother tongue mixing in second language learning.

1.1 Language Error Analysis

Language error analysis is an approach used to analyze and understand the mistakes made by students in producing or using the target language. This involves identifying and classifying language errors as well as analyzing their causes. In general language error analysis, there are several types of errors that are often identified and classified, including :

1. Phonological errors: Errors in the pronunciation or articulation of sounds in the target language. For example, incorrect pronunciation of consonants or vowels.
2. Morphological errors: Errors in forming words using incorrect morphological rules. For example, mistakes in the use of prefixes, suffixes, or changes in word forms.
3. Syntactic errors: Errors in sentence structure or grammar. For example, mistakes in applying grammatical rules such as subject-predicate, pronouns, or verb forms.
4. Lexical errors: Errors in selecting words or vocabulary that are not appropriate for conveying the desired meaning. For example, using inappropriate synonyms or choosing words with multiple meanings.
5. Discourse errors: Errors in composing or organizing text or conversation. For example, mistakes in connecting sentences or ideas coherently and cohesively.

In addition, in language error analysis, it is important to consider other factors that may contribute to mistakes, such as the influence of the first language, the learning strategies utilized, cognitive levels, or understanding of certain concepts, as well as sociolinguistic factors. Language error analysis provides insights into the difficulties faced by students and aids educators or linguists in designing more effective teaching strategies (Graham & Post, 2018). The following Figure 1 presents the theoretical framework for language error analysis.

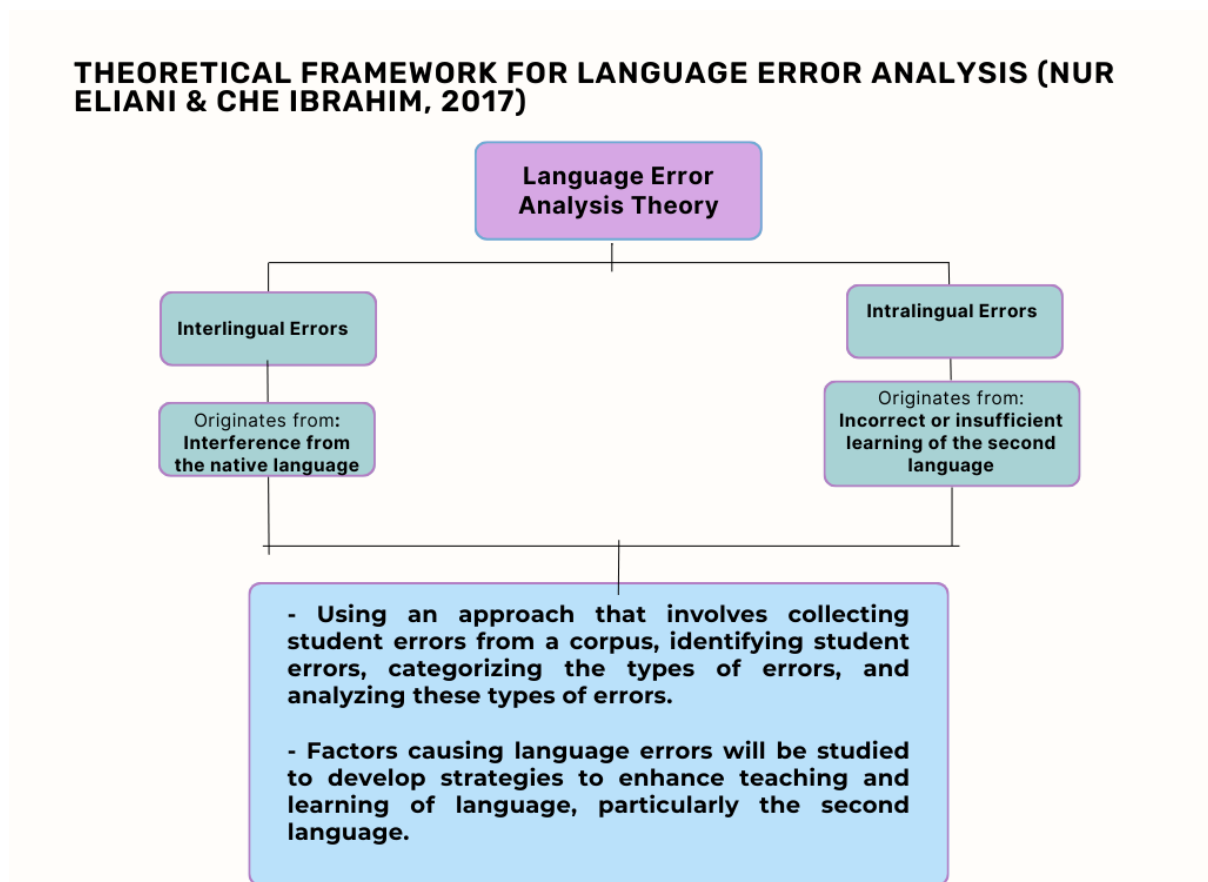


Figure 1. Theoretical Framework for Language Error Analysis. Language Error Analysis Theory

Interference from the first language or mother tongue can play an important role in shaping a student's oral and written skills in a second language (Zhao et al., 2024). However, first language interference affecting second language skills is not the only factor influencing the development of the second language. Factors such as the learning environment, motivation, learning experiences, and teaching strategies also play significant roles in shaping an individual's second language skills. The study of the influence of Malay as a mother tongue highlights the difficulties faced by students, particularly in understanding and mastering the concepts of constructing and structuring basic sentences in Arabic. Several factors can cause these difficulties. Firstly, Arabic has a different structure from Tamil in terms of grammar and syntax. Arabic features distinct sentence patterns with different rules for word placement. This difference can confuse students with Tamil language background, as they must acclimatize to new structures in Arabic. Arabic also possesses vocabulary and idiomatic phrases that differ from Tamil. Unfamiliar or foreign vocabulary and expressions can impede students' understanding and correct usage of Arabic. A third factor shows that Arabic has sounds and pronunciation systems that are distinct from those in Tamil. Students who use Tamil as their mother tongue may struggle to pronounce Arabic sounds that do not exist in Tamil. This can affect their comprehension and oral communication skills in Arabic. Finally, students already familiar with the sentence structure in Tamil may find it challenging to adapt to the different sentence structures in Arabic. Tamil features different sentence patterns compared to Arabic, so students must alter their understanding of how to construct sentences in Arabic.

To overcome these difficulties, it is crucial for students to receive proper guidance and instruction from experienced educators in teaching Arabic to students whose mother tongue is Tamil. Effective

teaching methods, an emphasis on conceptual understanding, and structured practice can help students navigate these hurdles and master the concepts of constructing and structuring basic sentences in Arabic. Difficulties in constructing Arabic sentences and errors in selecting appropriate words for verb referents are common issues faced by students learning Arabic. Arabic has a different grammatical structure compared to Tamil or the students' mother tongue. Students need to understand sentence patterns, word order, and typical Arabic grammatical constructions. If students do not grasp these well, they may struggle to formulate correct sentences. Additionally, students may have difficulty choosing the correct words for verbs in Arabic. New and unfamiliar Arabic vocabulary can complicate the selection of appropriate words, leading to mistakes in choosing the right verbs based on the context of the sentences.

Overcome or reduce mother tongue mixing in second language learning, the researcher conducted interviews with teachers and students. These interviews aimed to gather insights into effective teaching strategies and learning approaches that could assist students in mastering Arabic by mitigating the influence of their mother tongue. In summary, the study aims to identify how mother tongue interference affects students' ability to construct correct Arabic sentences and offers suggestions for improvements in teaching and learning Arabic. By analyzing the influence of the mother tongue, identifying the difficulties faced by students, and proposing solutions along with enhancements in the teaching methodology, this paper seeks to contribute significantly to understanding and improving students' ability to construct proper Arabic sentences.

Methodology

This study employs a quantitative design with descriptive statistical analysis to investigate the influence of mother tongue on the use of Arabic as a second language among students. The focus of this study is to identify the types of errors made by students in their Arabic writing. For data analysis, software tools such as Microsoft Excel and SPSS are utilized. The obtained data are analyzed using descriptive statistics, including percentage calculations and frequency counts of the errors made by students across various linguistic categories such as grammar, spelling, sentence structure, and punctuation usage. The research instrument consists of a written test that includes several key components such as grammar, spelling, sentence structure, and punctuation. The test questions are designed to assess the students' mastery level in writing Arabic. The sample for the study ($n=30$) is selected based on students' academic performance, specifically targeting outstanding, average, and weaker students. This sampling is intended to provide a more comprehensive dataset to identify language errors made by students at various achievement levels.

The data collected is analyzed based on error analysis by (Sitorus & Sipayung, 2018), which examines how the use of the mother tongue can interfere with second language learning. To address the first research question, the researcher collects students' examination scripts and conducts a manual marking analysis to identify any language mixing within the Arabic texts. The researcher assesses the types of language errors, such as marking error types and indications of language mixing. To respond to the second research question, the researcher utilizes the writing samples from the written examination and analyzes them by comparing them with original Arabic texts. For the third research question, which explores effective learning strategies or approaches to overcome mother tongue mixing, the researcher conducts interviews with both teachers and students to gather insights on successful teaching methodologies and learning techniques that can assist students in mastering Arabic.

Results and Discussion

This study reveals that code-switching and language-mixing are prevalent among AFL (Arabic as a Foreign Language) students in Chennai, with students frequently alternating between Arabic and their mother tongues, particularly Tamil and other Dravidian languages. This linguistic behavior is primarily influenced by the structural and phonological features of their native languages, which impact their pronunciation, syntax, and lexical choices in Arabic. Code-switching serves several functions, including clarification of unfamiliar Arabic terms, emphasis on key points, and compensation for lexical gaps. Additionally, patterns of language-mixing often involve lexical borrowing and grammatical overlaps, where Arabic sentences reflect the syntactic rules of the students’ native languages. The multilingual socio-cultural context of Chennai, coupled with Arabic’s status as a liturgical language, further shapes students’ use of code-switching, often restricting Arabic to formal or religious contexts.

Proficiency levels significantly influence the frequency and purpose of code-switching. Beginner-level students exhibit higher reliance on their mother tongue due to limited Arabic vocabulary, while advanced learners use code-switching strategically for clarification and emphasis. Although code-switching provides communicative ease, excessive dependence on the mother tongue can hinder Arabic fluency. However, when used judiciously in classroom settings, particularly by teachers, it can serve as a scaffolding technique to enhance comprehension and retention. Peer interactions also play a critical role, with hybrid Arabic-native language discussions being common in group settings. Furthermore, the use of bilingual learning resources supports understanding but may inadvertently reinforce language-mixing habits. These findings underscore the need for pedagogical strategies that balance mother tongue support with immersive Arabic practices to maximize the benefits of code-switching while minimizing its potential drawbacks.

Types of Mother Tongue Mixing in the Use of Second Language (Arabic)

Overall, the language errors made in Arabic in these answer scripts can be classified into the following types. This language error analysis is based on the al-Arabiyyah Lil Hayath book. The researcher has focused on mechanical errors such as punctuation, contractions, spelling, usage of articles, 'verb to be', pronouns, sentence structure, and the influence of style and grammar of the Arabic language. Table 1 below shows the types of errors found in the respondents' answer scripts.

Table 1. Types of Errors in Answer Scripts

Type of Error	Frequency	Percentage
Punctuation	2	4.4%
Spelling Errors	11	24.4%
Sentence Structure	10	22.2%
Grammar	22	49.0%
Total	45	100%

Based on Table 1, these findings indicate that the New College students, who use Tamil as their mother tongue, tend to make errors in Arabic as a second language. These types of errors can be classified into four main categories:

1. **Grammar (49%):** Errors in grammar are the most frequently encountered errors in the students' answer scripts. This includes the use of verbs, pronouns, sentence structure, and other grammatical aspects of Arabic that are influenced by Tamil. These grammar errors indicate the presence of mother tongue mixing in the use of the second language.
2. **Spelling Errors (24.4%):** Spelling errors reflect imperfections in spelling Arabic words. Students often make these mistakes because the spelling structure in Arabic differs from that in Tamil. This also reflects the influence of the mother tongue in the mechanical aspects of writing.
3. **Sentence Structure (22.2%):** Errors in sentence structure include incorrect word order or the inappropriate use of words in the Arabic sentence. This also reflects the influence of Tamil in the way they construct sentences in Arabic.
4. **Punctuation (4.4%):** Errors in the use of punctuation indicate imperfections in the mechanical aspects of writing. Although the percentage is low, it still reflects the influence of the mother tongue in the second language.

Overall, the language errors in Arabic made by these students show the mixing of their mother tongue (Tamil) in the use of Arabic. This may indicate that the influence of the Tamil language affects their use of grammar, spelling, sentence structure, and punctuation, which is the main focus of this study.

Influence of Mother Tongue Mixing (Tamil) on Errors in Writing and Speaking Arabic

The data findings show that several sample answer scripts indicate the influence of the mother tongue (Tamil) in writing sentences in Arabic. This is due to predicate arrangement referring to noun phrases that follow the sample's habits. Table 2 shows the errors in constructing Arabic sentences that exhibit mother tongue interference. In assessing the influence of mother tongue mixing (Tamil) on the errors in the students' second language writing, Table 2 provides concrete examples of how this influence is manifested in the construction of the students' Arabic sentences. Here is an interpretation of each error found in Table 2:

1. **Error 1:** In the first sentence, the student did not use the verb (فعل) in the sentence, which is an important aspect in Arabic. This error may be attributed to the influence of Tamil, which does not require a similar verb in its structure.
2. **Error 2:** In the second sentence, the student did not use the vocative particle (يا) used to address someone in Arabic. The use of the vocative particle is an important aspect of the Arabic language, and its absence may be due to differences with Tamil.
3. **Error 3:** In the third sentence, the student was confused about the use of the pronoun (ضمير) used in the context of the third person singular (Salwa). This is an error related to the influence of Tamil, which may have different rules regarding the use of pronouns.
4. **Errors 4 and 5:** These errors are also related to the incorrect use of the third-person pronoun (ضمير غائب) in the context. The student used "هي" (she) in an inappropriate context. This is an example of how Tamil influences the correct use of context in Arabic.

5. Error 6: In the sixth sentence, the student made a mistake by adding unnecessary words to the sentence. This error may be due to the influence of Tamil, which uses a different sentence structure.

Table 2. Influence of Mother Tongue Errors

Item	Example of Errors	Reason
Influence of Native Language	طالب إلى مكل மாணவர் ஆய்வகத்திற்கு <i>Student to lab</i>	The student does not use the verb
Correct Sentence/ Construction	يذهب طالب إلى المختبر மாணவர் ஆய்வகத்திற்கு செல்கிறார் <i>The student is going to the lab.</i>	
Influence of Native Language	أين سلوى علي؟ சல்வா அலி எங்கே? <i>Where is Salwa Ali?</i>	The student does not use the vocative particle.
Correct Sentence/ Construction	أين سلوى يا علي؟ ஓ அலி சல்வா எங்கே? <i>Where is Salwa, O Ali?</i>	
Influence of Native Language	سلوى تشرب حليب பால் குடிக்கிறார் சல்வா <i>Salwa drinks milk</i>	The student is confused with the use of pronouns, possibly due to influence from the native language.
Correct Sentence/ Construction	سلوى تشرب الحليب சல்வா பால் குடிக்கிறார் <i>Salwa drinks milk</i>	
Influence of Native Language	طالبة هي سلوى في المدرسة சல்வா என்ற மாணவர் பள்ளியில் உள்ளார் <i>The student is Salwa at school</i>	The student is confused regarding the use of the third-person feminine pronoun (هي).
Correct Sentence/ Construction	سلوى طالبة في المدرسة சல்வா பள்ளியில் படிக்கும் மாணவர் <i>Salwa is a student at school</i>	
Influence of Native Language	طالب هو أبو بكر في المدرسة பள்ளியில் அபுபக்கர் என்ற மாணவர் உள்ளார் <i>The student is Abu Bakar at school</i>	The student is confused regarding the use of the third-person masculine pronoun (هو).
Correct Sentence/ Construction	أبو بكر طالب في المدرسة அபுபக்கர் பள்ளியில் படிக்கும் மாணவர்	

Abu Bakar is a student at school

Influence of Native
Language

هي عمل في طالبة
அவள் ஒரு மாணவியாக
செயல்படுகிறார்
She acts as a student

The student is confused
with the use of pronouns

Correct Sentence/
Construction

هي طالبة
அவள் ஒரு மாணவி
She is a student

Various situations, which, in turn, will help the students to reduce their mother tongue mixing and improve their overall Arabic language skills. The use of reading materials, texts, and media in Arabic is another very important approach in second language learning (Hamidah et al., 2023). The main benefit of using reading materials and texts in Arabic is to enrich vocabulary, understand sentence structure, improve reading comprehension, be exposed to Arab culture, and become proficient in Arabic communication. The importance of selecting reading materials that match the students' proficiency level is also emphasized. Teachers should choose texts that suit the students' level of understanding so that they are neither too hindered nor too difficult to comprehend (Lodge et al., 2018); (Dwivedi et al., 2022). In this way, using reading materials, texts, and media in Arabic can become an effective tool in enhancing students' Arabic language skills.

Arabic grammar courses are a very effective approach to helping students understand sentence structures and grammatical rules in Arabic. Teachers can conduct grammar exercises focused on the differences between Arabic and Tamil. By taking this course, students can develop their skills in using Arabic more accurately (Almelhes, 2024). Students will learn how sentences in Arabic are constructed, including word order and related grammatical rules. By understanding grammar, students will be able to write Arabic sentences more fluently and accurately. Students who take Arabic grammar courses will gain a better understanding of the differences between Arabic and Tamil, which is a key factor in overcoming language mixing. Additionally, this course also helps to improve students' speaking skills with more confidence and precision. A deep understanding of grammar also enables students to analyze Arabic texts better, significantly improving their comprehension of readings and text interpretation. Teachers conducting Arabic grammar courses can design specific exercises that emphasize certain grammatical rules that often cause errors in students' writing and speaking in Arabic (Albelihi & Al-Ahdal, 2024). In this way, this course will greatly benefit in overcoming language mixing and enhancing students' proficiency in Arabic.

Discussion sessions in Arabic are an effective approach to facilitating interaction and communication in the language (Qasserras, 2023). In these conversation sessions, teachers can simplify dialogues on relevant topics, which helps enhance students' speaking proficiency. Additionally, the use of online resources such as Arabic language learning apps, educational videos, and grammar software can also provide opportunities for students to practice and understand the Arabic language more deeply. There are many online resources specifically designed for learning Arabic, which can provide additional benefits in improving students' Arabic proficiency (Ritonga et al., 2024). Through the integration of these approaches in Arabic language learning, students can enhance their overall Arabic language skills and more effectively address their mother tongue mixing. This will help them understand, use, and master the Arabic language with greater confidence, opening doors to a deeper understanding of Arab culture and meeting their needs in the field of Islamic studies as well as primary resources written in Arabic.

Discussion

The findings of the study indicate that the use of Tamil as a mother tongue by students at the New College, Chennai influences their use of Arabic as a second language. The types of language errors frequently encountered include grammatical errors, spelling errors, sentence structure, and punctuation usage. This reflects the presence of mother tongue mixing in the students' use of Arabic. The suggested approaches to overcoming or reducing this mother tongue mixing are highly relevant (Hemberg & Sved, 2021); (Igarashi et al., 2024). The use of Arabic in real-life environments, reading materials and texts in Arabic, Arabic grammar courses, discussion sessions in Arabic, and the use of online resources are effective approaches to assist students in understanding, mastering, and using Arabic better. In addition to these approaches, it is also important to emphasize the awareness and understanding of students regarding the differences between Arabic and Tamil. This will help them identify the various types of errors that may arise due to the influence of Tamil. Through ongoing education and appropriate training, students can enhance their skills in using Arabic more accurately. It is also important to recognize that the process of learning a second language is an ongoing endeavor, and mistakes are part of it. Therefore, teachers need to provide support and guidance to students in their efforts to address mother tongue mixing. This includes providing constructive feedback and focused exercises on the aspects where students often make mistakes. These approaches can help students at the New College to improve their proficiency in Arabic, an essential skill in the field of Arabic and Islamic studies and understanding primary resources written in Arabic. Furthermore, a better understanding of Arabic will also open doors to a deeper comprehension of Arab culture as a whole.

Conclusion

The results of this study provide a better understanding of the types of language errors made by students influenced by Tamil in their use of Arabic. It also highlights the importance of identifying the influence of the mother tongue in second language learning and seeking appropriate learning strategies to address these issues, such as creating a learning environment that facilitates the use of Arabic-like interactive classes, study groups, or intensive Arabic language programs. This will provide more opportunities for students to practice and communicate in Arabic. Additionally, encouraging students to seek more active exposure to Arabic, such as reading learning materials in Arabic, watching Arabic-language films or television broadcasts, or utilizing available online resources, will expose them to the Arabic language and culture. Furthermore, the use of technology should be maximized, such as Arabic language learning apps, online learning platforms, or interactive multimedia resources that can assist students in practicing and improving their Arabic proficiency. Collaborating with native Arabic speakers to build partnerships with communities or institutions of native Arabic speakers that provide student exchange programs or cultural programs will allow Tamil students to interact with native Arabic speakers and gain enjoyable learning experiences. With the right approach and consistent effort, Tamil students can overcome the challenges of learning Arabic as a second language and develop solid skills in reading, writing, speaking, and understanding the Arabic language effectively. The implication of this study is that educators need to consider the influence of the mother tongue in teaching and learning a second language and to design appropriate learning strategies to help students address these language errors.

Conflicts of Interest

The author declares that there is no conflict of interest.

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