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CODE-SWITCHING BETWEEN ARABIC AND ENGLISH IN SAUDI ACADEMIC SETTINGS: A SOCIOLINGUISTIC STUDY OF PATTERNS, ATTITUDES, AND FUNCTIONS

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ABSTRACT

This study aimed to analyze the phenomenon of language switching between Arabic and English among university students in Saudi Arabia by revealing its prevalence, patterns, motivations, and students' attitudes towards it, in addition to examining differences according to certain demographic variables. The study employed a quantitative descriptive-analytical approach, collecting data using a questionnaire designed for this purpose. The questionnaire was administered to a sample of 850 male and female students from six Saudi universities, selected using convenience sampling. The study instrument consisted of four main dimensions: the prevalence of language switching, its patterns, its motivations, and students' attitudes towards it. Its validity and reliability were verified using correlation coefficients and Cronbach's alpha. The results showed that language switching is a common phenomenon in the university environment, with the average for the prevalence dimension being 4.02, the patterns dimension 4.01, the motivations dimension 4.03, and the attitudes dimension 3.90—all within the high range. The results also revealed statistically significant differences based on gender, academic level, and English proficiency level, but no significant differences were found based on major or university. This study concluded that language switching is an effective tool of communication and cognition within a university setting, and the research recommends its thoughtful implementation in the educational process to enhance student interaction

KEYWORDS: Language Switching, Patterns, Motivations, Trends, Linguistics, University Students, Saudi Arabia.

1. INTRODUCTION

Contemporary societies are experiencing the fast language change in the background of globalization and technological development where the contact of languages is becoming a noticeable aspect of multilingual practices especially in educational and workplace. In this context, code-switching has gained the status of a basic linguistic occurrence that depicts the communication between various language systems in one discourse. The code-switching is described as the switching of two or more languages in a particular communicative event (Zaheer et al., 2025). It is also regarded as a natural event in multi linguistic communities, where a speaker switches languages depending on the needs of the conversational situation (Hamed et al., 2025). The prevalence of the use of English as the main global language in science, technology and international communication has brought about more opportunities in interaction with other languages such as Arabic (Alsalami, 2025).

In the Arab context, this phenomenon assumes other dimensions due to the diglossia nature of the Arabic language, where the dialect of Modern Standard Arabic exists alongside colloquial forms, in contrast to the contact with the foreign language, most of the contemporary Arabic language with English (Benmessaoud & Boubekeur, 2022; Abuemira, 2025). This linguistic overlap has arisen due to historical and social factors (e.g., colonialism, cultural and educational exchange) and has given rise to different patterns of language switching in Arab societies (Duranti, 2008; Cotterell et al., 2014; Hamed et al., 2025). Moreover, the contemporary educational system that continues to depend on the English language especially in the sciences has played its part in institutionalizing this vice among students (Zaheer et al., 2025).

Saudi Arabia is among the environments that have experienced a considerable linguistic change over the last few decades due to the economic, educational, and technological openness, which influenced the widespread integration of the English language, in addition to the Arabic language, in multiple areas (Omar & Ilyas, 2018). This change has been attributed to economic and political aspects especially since the discovery of oil since the communication contact with English speaking countries also demanded the use of English in communication, work, and education (Owen, 2008; Faruk, 2014). In addition, the scholarship programs and university education are taught in English have helped in embracing bilingualism among people, where language switching has become a norm in the

Saudi society (Karmani, 2005; Aldosari, 2023; Barnawi & Alzahrani, 2025).

In academic settings, language switching is evident as a communicative tool practiced by both learners and professors, especially when one is learning a foreign language such as English. In order to comprehend and communicate intricate thoughts that may be hard to articulate using one language, students tend to switch between Arabic and English to enable them to convey and understand most ideas (Algethami, 2025). The language switching is a means of facilitating the educational process which partially helps in elucidation of concepts and eliminates linguistic ambiguity (Baker, 2011). It is not simply restricted to the cognitive element, but it is also expanded to the social and emotional ones, which helps to establish a more interactive and comfortable study experience among students (Zaghlool & Altamimi, 2023).

Moreover, language switching is a highly important characteristic as a manifestation of cultural and social identity that allows speakers to combine their local linguistic belonging to their communities with the requirements of the global communication (Al-Rojaie, 2023). It is also used as a means of peer interaction, especially in the group work, where students can interact more efficiently (Albahoth et al., 2025). Socio-linguistically, language switching is considered a communicative strategy, which serves several purposes, including to clarify meaning, emphasize, switch the topic, and to form social relationships (Gumperz, 1982; Alhourani, 2018).

The literature also indicates that the switching between languages is not random but organized and follows rules and patterns that reveal bilingual competence of speakers (Gardner-Chloros, 2020; Alsalami, 2021). Its application is associated with a range of aspects such as linguistic competence, social context, the subject matter character, and cultural identity (Eldin, 2014; Alsalami, 2021). Studies have demonstrated that switchover of languages by bilingual speakers is a way of compensating language deficiency or to facilitate more accurate message delivery (Masrahi, 2016).

With the development of digital communication, the phenomenon of language switching has taken on new dimensions, as the situation continues to become more widespread on the social networks that enable users to share their ideas in a combination of languages, such as Twitter, which allows users to express their thoughts using a mix of languages (Alsamhan & Almutrafi, 2022). Studies have revealed that this use demonstrates a variety of

communicative processes, including identity expression, social involvement, and transfer of information (Java et al., 2007). However, a deeper understanding of the patterns of this usage in different contexts, particularly in academic settings, remains needed.

Although the topic of language switching is a growing research interest within the Arab and Saudi context, most past studies have concentrated on the generalities of the phenomenon, including its definition and functions, or examined it in the contexts of situations, including every day and online communication, but never discussed its patterns and motivations in the university setting (Alhourani, 2018). Although there are studies that have dealt with the trends towards language switching, they have failed to effectively connect these trends to the patterns of actual use (Omar and Ilyas, 2018). Moreover, there exists distinct gap in literature that integrates quantitative analysis of prevalence of the phenomenon with its interpretation considering social and educational determinants of the Saudi context.

Accordingly, the significance of the present study lies in its effort towards working out this research gap by conducting a thorough sociolinguistic study of the phenomenon of language alternation between Arabic and English in Saudi university learning institutions. This analysis entails quantification of the prevalence of the phenomenon, examination of the pattern and discussion of the determinants of the phenomenon. The research also seeks to give a more in-depth insight on the importance of this phenomenon in the educational process and how it affects the linguistic and cultural identity of students, thus, contributing to the creation of more efficient teaching methods. Therefore, this research will contribute to the existing body of applied linguistics and offer a scientific basis that will be useful to researchers and policy makers in language teaching in Saudi Arabia.

2. LITERATURE REVIEW

Code-switching is a manifestation that has received great attention in the fields of sociolinguistics and applied linguistics as an example of a multifaceted interaction between language and social, cultural, and communicative context. The alternation of two or more languages systematically in the same communicative event is usually referred to as code-switching (Baker, 2011; Alshehri, 2025). It entails a combination of aspects of two distinct linguistic systems in the same discourse, either sentence, phrase, or even linguistic unit

(Milroy & Muysken, 1995). Gumperz (1982, p. 59) offered a more precise definition as the opposition of speech parts of two different grammatical systems in one conversation. This highlights the point that code-switching is not just a superficial process, but it is an organized linguistic form that follows up to certain rules.

In this regard Myers-Scotton (1993) posits language switching is expressed through the choice of elements of a language within a language framework of basic linguistic structure referred to as the Matrix Language Frame Model. The framework language in this model defines the grammatical structure, and the other language elements are added to the framework language in this model based on certain grammatical restrictions. This model can be said to be one of the most explanatory models to the behavior of bilingual speakers since it shows how the discourse of bilinguals is structured. Markedness model introduced by the same researcher also describes language switching as a strategy that reflects social relations, in the current situation, the speaker uses the right language based on the social situation and social roles (Zaheer et al., 2025).

The Communication Accommodation Theory (Giles, 1973), on the other hand, is a valuable theory to be used to consider a social aspect of language switching. It implies that people change the patterns of language in order to become closer or farther in relation to the other person, which manifests the dynamics of social relations in the context of the linguistic interaction (Alsamhan & Almutrafi, 2022). This theory is important because it highlights the fact that the issue of language switching is not only a linguistic act, but a social act that has the intentions of speakers, and their attitudes.

The patterns of language switching have been tried to be categorized in the literature. One of the most widespread is that of Poplack (1980), which classified switching into three major categories, including intersentential switching, intrasentential switching, and syllabic switching. It is also important to note that intrasentential switching is more linguistically competent as it deals with two grammatical systems at the same time, whereas intersentential switching is more prevalent among learners (Ismail, 2015). Such categorizations affirm that the process of language switching is not arbitrary, and instead it must comply with very strict linguistic and grammatical conditions, including the equivalence constraint and the free morpheme constraint (Poplack, 1980).

Language switching should be differentiated with

some related phenomena, including borrowing and amalgamation. Borrowing is the process of permanently introducing vocabulary of a language into the language of another into a linguistic system whereas language switching is the two independent linguistic systems that are used in a discourse (Muysken, 2000). Amalgamation is commonly regarded in connection with the use of small linguistic units and can be related to the low linguistic competence, but language switching demonstrates high communicative competence and language control (Holmes, 2013). The language switching phenomenon in the Arabic context is more complicated because of the existence of the phenomenon of diglossia, where Modern Standard Arabic occurs together with colloquial dialects in the same community (Ferguson, 1959). The modern Standard Arabic is applied in formal situations like education. Although the everyday Arabic language is colloquial, media language is more subtle and therefore they form a multi-layered linguistic space. The linguistic interference of Arabic with English is intensified by the English language spread in Saudi Arabia, especially in academic and technological areas, which contributes to this complexity (Omar & Ilyas, 2018).

The Arabic language exerts a unique status of the language of Holy Quran, thereby providing the language with strong religious and cultural orientation in the Saudi society (Holes, 2004). Globalization and the development of technology, however, have enhanced the status of English even more so among the youth and university students and the resultant effect is the prevalence of language mixing between the two languages. This change is not confined to the vocabulary but extends to the grammatical structures where English words are integrated into the Arabic sentences but preserving or altering the grammatical regulations (Zaheer et al., 2025).

This linguistic overlap has been promoted by social media as well because people speak a combination of Arabic and English to identify themselves and communicate with other people, leading to new language switching patterns, including the use of Arabizi (Alsamhan & Almutrafi, 2022). This trend has been influenced by globalization and technology on language behavior whereby language has turned into a way of highlighting cultural belonging and online identity.

The reasons of language switching are varied, including cognitive, social, emotional, and cultural. Cognitively, language switching is applied to help the understanding of a language, particularly with

the complicated concepts or unfamiliar terms, where the speaker uses the language that is clear to him/her (Omar and Ilyas, 2018). It is also applicable in correcting vocabulary gaps since a speaker might not locate an appropriate word in one of the two languages.

Socially, language switching is applied to foster a sense of belonging and solidarity among people since speaking a given language may mean belonging to a certain social group. It is also applicable in showing social status or educational level since the use of English language would be equated to modernity and education (Al-Khatib, 2003). Emotionally, the ability to switch languages enables the speakers to be more exact in displaying their emotions, with the native language having greater potential to reflect emotions and personal experiences (Algethami, 2025). It is also occasionally applied to make tension less or to make the communication easier going. The language switching, which is a form of identity expression, is an indication of local culture and globalization and can be employed to reconcile various affiliations culturally (Akhtar et al., 2016). It is also occasionally employed as an endeavor to convey contemporary and cultural receptivity (Rouchdy, 2005).

Functionally, language switching carries out a variety of communicative functions, including clarification, repetition, emphasis, addressing the audience, and structuring discourse, which are functional (Alsalami, 2021). It may also be applied in rhetoric, i.e. to draw attention or have an effect on the recipient (Nerghes, 2011). Language switching is also applied in the educational world as a pedagogic instrument to make learning easier and boost classroom engagement (Alshehri, 2025).

Following the recent progressive events, modern literature has introduced new aspects of the language switching phenomenon that have not been given the due content in the classical literature, especially in natural language processing. Hamed et al. (2025) have mentioned that the linguistic substitution in Arabic does not only exist in the known levels but also it also involves morphological substitution, where Arabic morphological units are fused with foreign words as parts of one word. This indicates the complexity of the Arabic language as a structure. The paper also established that the separation between the linguistic substitution and loanword borrowing is a methodological issue as it is challenging to determine the moment when the foreign words are used and the permanence of the lexicon.

In terms of developing the research area, the

findings revealed that the attention to linguistic substitution in Arabic in the context of the computational processing started to gain traction after 2014. The percentage of the research that is published in conferences and workshops is significantly higher than the number of scientific journals, which is due to the applied and technical essence of the area (Hamed et al., 2025). It was also found that there was a relative lag in the use of modern models, including neural networks and pre-trained models, compared to other languages, although this is currently shifting towards being in step with the rest of the world (Winata et al., 2023). Concerning the data, it was established in studies that social media is the most useful source of language switching data because it is interactive and cheap. Nevertheless, this sort of data cannot be the true representative of language switching in spoken speech, and there is also the complexity of the analysis process by the fact that other writing systems are used, like Arabizi (Bies et al., 2014; Alsulami, 2019). Also, it is shown in the literature that most studies concentrate on few computational tasks, including word-level language identification, speech recognition, and machine translation, but many more advanced tasks, including natural language understanding, text generation, and semantic analysis, are underrepresented, which shows that the research gap in this field is evident (Hamed et al., 2025). Regarding the challenges, the analysis of language switching has a set of difficulties connected with the fact that the presence of similarities between words used in languages (cognates), the fact that formal and colloquial Arabic overlap, and those traditional measures might not be sufficient when analyzing linguistically mixed texts (Solorio et al., 2014; Aguilar et al., 2020; Hamed et al., 2023). Also, the lack of multi-dialectal data and the lack of good representation of certain linguistic patterns restrict the construction of correct and thorough models (Hamed et al., 2025).

Numerous studies have investigated the phenomenon of language switching in various situations and they have always proved that language switching is useful in enhanced communication and understanding, especially in the multilingual learning environments. A study by Alshehri (2025), the students enrolled in a course taught in English as Foreign Language (ESL) in Saudi universities recognize language switching as a desirable learning strategy that enables students to learn and engage in classroom activities. The research study found out that the most notable reasons among the students who switch language

are the need to invoke Arabic equivalents, enhance self-confidence, convey ideas of the western culture, and use more specific English words. The findings also showed that students often use language switching during social interactions since they use English words and phrases in Arabic dialogue, which is the development of a hybrid language pattern, that demonstrates the expression of a two-language identity.

Similarly, a study conducted by Omar and Ilyas (2018) confirmed that language switching attitudes among Saudi academic communities are quite positive, particularly among the young people and university students. On the one hand, the educational level and age turned out to be strongly correlated with the acceptance of language switching on the other hand. The findings also indicated that positive attitudes on language switching also lead to better performance in learning since the attitude of learners towards language directly affects their capacity of learning and acquiring knowledge. Therefore, the significance of language switching as an educational resource and not a bad phenomenon should be emphasized.

This opinion was proven by a study conducted by Alhourani (2018), who showed that language switching is an efficient communication tool to use when speaking to bilingual Saudi speakers. It also carries out some of the significant communicative roles including quoting, shifting the subject, expressing feelings, and imposing social identity. These results suggest that the so-called language switching is not simply a language instrument, but it has further functional and social aspects that define the type of interaction between people. Conversely, there have been studies that have concentrated on the analysis of the linguistic patterns of switching. According to a study by Zaheer et al. (2025), the alternating language between Arabic and English has become an increasing trend in the modern Arab societies especially among the youths where the use of the language has been associated with both educational and social settings. The research also created the morphological assimilation of the English vocabulary into the Arabic framework, as well as the relation between language alternation and the notions of modernity and globalization, with certain concerns over its influence of the Arabic linguistic identity.

Within the framework of examining influential social aspects, one of the studies undertaken by Ismail (2015) was concerned with the connection between gender and linguistic switching. It revealed that the rate of linguistic switching among Saudi

females is higher than that of males, particularly in in-sentence switching, which indicates a convergence and social adjustment of language. However, the difference was observed in males where they tended to exhibit linguistic divergence more since it is possibly due to cultural and social values which had a role to play in determining the patterns of language use. Such findings affirm that the linguistic switching can only be affected by linguistic competence as well as by existing cultural and social arrangements. Debate on the effect of variables including the education level, language proficiency, and age on the use of language switching was also investigated in the study by Alsalami (2021). The findings established that more and more elaborate language switching is likely to be observed among the highly English proficient individuals as they can use the English vocabulary in the most precise and effective manner. Also, it was found that patients with a well-developed education, in comparison with others, employ the language-switching more frequently, which means that this process is also connected to their degree of linguistic and cognitive consciousness.

Regarding digital communication, the article by (Alsamhan & Almutrafi, 2022) revealed that language switching is an important factor in the communication on social media. The selection of language depends on several factors, and they include: the subject matter, the audience, and the level of education. This study established that users are inclined to use Arabic in religious issues and English in educational issues and language switching is more constantly used in social issues. It was also found that there were statistically significant differences in terms of gender and level of education, where people having higher education were more likely to use a mixture of the two languages. At a larger scale, as it was established by Hamed et al. (2025), language switching was the inherent characteristic of the modern Arabic language environment, because of multilingualism and diglossia, with the usage of Modern Standard Arabic, colloquial Arabic, and foreign languages intersecting each other on the same basis. It also highlighted the significance of such phenomenon in the development of natural language processing methods, where there are research issues regarding the comprehension and analysis of patterns of language switching, hence the requirement of more detailed research in this field.

Despite the significant body of research, the literature still points to a clear research gap: a lack of studies utilizing a systematic quantitative method of

combining the measurement of the prevalence of language switching with the measurement of the patterns and motives of this practice in the context of the Saudi universities. Thus, this paper will fill this gap by means of a thorough quantitative research of the phenomenon of language mixing in Saudi universities which involve the usage of both Arabic and English. This analysis quantifies the switching prevalence, determines its trends, and discusses the factors that determine it. This will help to build a theoretical and practical insight on this phenomenon in the applied linguistics and sociolinguistics disciplines and advance its implementation as an effective pedagogical instrument in multilingual educational settings.

3. MATERIALS AND METHODS

3.1. *Research Design*

This research adopts a quantitative design as the most appropriate in accomplishing its aims. The given approach makes it possible to evaluate the objective the phenomenon of language switching between Arabic and English objectively and analyze the relations between various variables with the help of specific statistical tools. Such an approach is common in sociolinguistics and applied linguistics research, particularly in studies that seek to investigate linguistic patterns and behavioral tendencies of a particular group of people in the society (Creswell, 2014). This research belongs to the descriptive analytical design as the researcher aims to present the phenomenon of language switching in the context of Saudi university and to examine its patterns, motifs, and factors. This design is suitable for studies that aim to understand linguistic phenomena in their natural context without experimental intervention (Sekaran and Bougie, 2016).

3.2. *Population and Sample*

The study population consisted of university students in Saudi Arabia, as they are one of the most common users of the Arabic and English languages both in their academic and communicative activities. Considering the large number of subjects in the study, convenience sampling was used to sample.

The study was conducted on a sample of 850 male and female students from six Saudi universities and the sample was selected in such a way that the academic environment in the Kingdom was duly represented. The selection of these universities was to attain some level of diversity in the demographic and academic aspects of the participants including various majors, academic levels, and English language proficiency levels. The sample size is

appropriate to perform advanced statistical analysis with the help of SPSS software and improve the external validity of the study findings to the ample extent (Hair et al., 2019).

The sample of the study was comprised of 850 undergraduate and postgraduate students picked in six Saudi universities by means of convenience sampling to make them accessible and diverse regarding academic backgrounds. The demographic characteristics of the sample revealed a nearly balanced gender distribution, with females representing a slightly higher proportion (50.6%) compared to males (49.4%), thus, a representation of both genders was equal. In terms of academic level, the sample was distributed across all years of study, with fourth-year students constituting the largest group (23.5%), followed by third year students (21.2%), second year students (20.0%), first year students (18.8%), and postgraduate students (16.5%), in that descending order. This distribution indicates that the sample is sufficient in terms of various phases of academic experience.

Regarding the field of study, the distribution was relatively balanced, with 37.6% of participants

enrolled in humanities, 36.5 % in scientific and 25.9% in medical fields. This variation increases the representativeness of the sample of different academic specializations. In terms of English language proficiency, most participants reported a moderate level (45.9%), followed by a high level (30.6%), and low level (23.5%). This pattern reflects a realistic distribution in the Saudi academic arena, where proficiency in English is unevenly distributed among the students.

Lastly, the sample was selected among six universities where there was a proportional representation of the universities. King Saud University and King Abdulaziz University contributed 17.6% each (n = 150), and Imam Mohammad Ibn Saud Islamic University (IMSIU), King Khalid University, and Taif University contributed 16.5% each (n = 140). Qassim university formed 15.3% of the sample (n = 130). Such a balanced distribution of the sample to the universities contributes to the representativeness of the sample and supports the generalizability of the findings across different academic settings in Saudi Arabia, [Table 1](#).

Table 1: Demographic Characteristics of the Sample (N = 850)

Variable	Category	Frequency	Percentage (%)
Gender	Male	420	49.4%
	Female	430	50.6%
Academic Level	First Year	160	18.8%
	Second Year	170	20.0%
	Third Year	180	21.2%
	Fourth Year	200	23.5%
	Postgraduate	140	16.5%
Field of Study	Humanities	320	37.6%
	Scientific	310	36.5%
	Medical	220	25.9%
English Proficiency	Low	200	23.5%
	Moderate	390	45.9%
	High	260	30.6%
University	King Saud University	150	17.6%
	King Abdulaziz University	150	17.6%
	Imam Mohammad Ibn Saud Islamic University (IMSIU)	140	16.5%
	King Khalid University	140	16.5%
	Qassim University	130	15.3%
	Taif University	140	16.5%
Total		850	100%

3.3. Instrument

The current study relied on a questionnaire as the primary data collection tool since it is quite appropriate to the quantitative methodology. The questionnaire was constructed with theoretical literature and references to the study work done in language switching. The author of the current study relied on several recent and topical works, including Alshehri (2025), Omar and Ilyas (2018), Alsalamy (2021), and Ismail (2015) and tried to create a tool

that would represent the multiple dimensions of the language switching phenomenon in the Saudi university setting. The questions were made simple, straightforward, and representative of the real language behavior of students in the academic environment.

The version of the questionnaire that was finally finalized was of 40 items organized into four broad dimensions that were used to represent some of the elements of the phenomenon under investigation as the prevalence of language switching, patterns of

language switching, motivations of language switching and attitudes towards language switching. In every dimension, there were 10 items. The responses of the sample were measured with the help of the five-point Likert scale, with responses ranging from (strongly disagree = 1) to (strongly agree = 5), allowing for a precise measurement of the degree of agreement.

Regarding the instrument's validity, face validity was established by presenting the questionnaire to five expert linguists, they all confirmed that the items were appropriate to the aims of the study, the clear wording and that the items were the ones that belonged to the dimensions that the items were to measure. The experts had a high rate of agreement of 91% which indicated high validity of the instrument. According to their feedbacks, some amendments were done, such as rephrasing some of the items, removing inappropriate items, and including items that improved the comprehensiveness of the instrument.

The instrument's internal consistency was also verified using Pearson's correlation coefficient, by calculating the correlation coefficient of each of the items with the total score for its respective dimension. The findings indicated that the correlation coefficients are 0.62 to 0.84 in terms of the prevalence dimension, 0.65 to 0.87 in terms of patterns dimension, 0.68 to 0.89 in terms of motivation dimension and 0.70 to 0.91 in terms of attitudes dimension. The statistical significance of all of these coefficients was 0.01 which indicates that the degree of internal consistency between the items is high, and each dimension measures the concept it was constructed to measure.

Regarding the instrument's reliability, Cronbach alpha was used to measure the degree of internal consistency among the items. The prevalence dimension of language switching had the most reliable coefficient of 0.88, patterns dimension had 0.90, motivation dimension had 0.92, and attitudes dimension had 0.89, whereas the total coefficient of the questionnaire reliability was 0.94. These are high values that signify high level of reliability since all of them are above the minimum acceptable level (0.70) according to Hair et al. (2019). This shows that the instrument is very reliable, and its findings can be relied upon.

According to the above discussion, the questionnaire adopted in this study has high scores of validities and reliability hence a proper instrument in the measurement of the phenomenon of language switching between Arabic and English

in the Saudi university setting and enhancing the reliability of the findings.

3.4. Data Analysis

After collecting data from the study participants, the data was entered and processed using the Statistical Package for the Social Sciences (SPSS) software to analyze and make conclusions attached to the research objective.

At stage one, preliminary data screening was performed to screen the data to verify that there were no input errors and to correct the missing values and to verify the presence of outliers. The skewness and curvature coefficients were also used to test the normality of the data distribution and were found to be within the acceptable limits (± 2) showing that the data can be used in parametric statistical tests.

The statistical validity and the reliability of the instrument was also ascertained through recalculation of the Cronbach alpha coefficient and the item correlation coefficients. These findings reinforced the fact that the instrument had high levels of internal consistency, which justifies the reliability of the information when conducting the statistical analysis.

The second phase involved the descriptive statistics that included the calculation of the means and the standard deviations of every dimension of the research to identify the prevalence, trends, motivations, and attitudes of language switching in the sample. The demographic characteristics of the sample were also described using frequencies and percentages. In interpreting the means, the range was divided into a five-level classification as follows: very low (1.00–1.79), low (1.80–2.59), moderate (2.60–3.39), high (3.40–4.19), and very high (4.20–5.00) using a five-point Likert scale to categorize the levels of responses. The classification gave a proper explanation of the outcome.

In terms of inferential statistics, the study was aimed at testing the differences between the sample in terms of demographics. Independent samples t-test was employed to identify respondent differences that were statistically significant depending on the gender (male/female). The one-way ANOVA was applied to determine the differences in the responses of the sample members based on multi-category demographic characteristics, including university, academic level, and GPA. In case statistically significant differences were observed, the Scheffe test was applied to compare the two groups at the post-hoc level to find out the direction of differences between the groups.

The significance of the results was determined using the level of statistical significance (0.05).

Based on these procedures, the data was systematically analyzed by using the descriptive statistics and ANOVA as per nature and purpose of the study as aimed at determining differences in language switching among students in the Saudi university environment.

4. RESULTS

According to **Table (2)**, the level of code-switching among students at universities in Saudi Arabia attained a mean score of (4.02), and this implies that the level was high and that code-switching among university students is a very common phenomenon. The highest mean score was 4.32 of item (10), stating that "Code-switching is common in the university environment, and the second item (6), which stating that "I notice code-switching among students frequently", with a mean of 4.25. This shows that the students have a high awareness of the prevalence of such phenomenon in the university setting. Academic practices were also registered as high with item (2), stating that "I mix Arabic and English during academic discussions," and item (4), stating that "Code-switching occurs frequently in lectures," indicating that code-switching is present in the classroom interactions. On the other hand, item (5), which stated "I use English when talking to my classmates," received the lowest mean score (3.70) followed by item (9) that indicated "I switch languages unintentionally."

Table (3) shows the patterns of language switching between university students was high and the mean (4.01) of the score was high with a mean score of (4.01). This goes a notch higher to confirm the fact that language switching is a natural and normal phenomenon among students within the university setting. The highest score was recorded for item (1), which stated, "I use English words within Arabic sentences," with a mean score of 4.28. This was followed by item (4), which stated, "I mix both languages within the same sentence," with a mean score of 4.22. This shows that there is much language switching use in sentences across the students. Items related to the use of English terms and expressions also scored highly, such as item (5), "I use English technical terms in my speech," and item (3), "I use short English phrases during conversations," demonstrating the presence of English in both academic and everyday use. In contrast, item (10), which states "I alternate between Arabic and English during conversation," received the lowest arithmetic mean with an average of (3.70),

and item (9), which states "I use English more in formal situations," received an average of (3.75).

Table (4) shows the dimension of the motivation of university students about using code-switching. The mean score in this dimension was (4.03), which represents high level and proves that motivations of students to code-switch are multidimensional and clearly covers two areas of cognitive and communicative dimensions of the language application. The highest mean of 4.30 was recorded by item (1), "I use English because some Arabic terms are not available," This was followed by item (2), "I use code-switching to facilitate understanding," with an average of 4.22. It means that cognitive and functional motivations can be regarded as one of the most salient techniques of code-switching. Questions that pertain to expression and linguistic specificity were rated very well including, item (3), "Code-switching helps me express myself better," and item (4), "English is more precise in expressing some concepts.". In contrast, item (10), which stated, "I use English due to cultural influence," and item (9), which stated "Code-switching saves time during communication," received the lowest mean scores, with averages of (3.75) and (3.80), respectively.

Table (5) indicates that the attitudes that university students had towards the language switching were positive as well. The mean point of this dimension was (3.90) which is a high one thus implying that students are more likely to be positive to acceptance of language switching, especially when it comes to education and communication. Item (8), which stated "I support using code-switching in education," ranked first with an average of 4.25. This was followed by item (2), "Code-switching helps in learning," with an average of 4.20. This demonstrates that positive attitudes towards the use of language switching in education are an adaption among students. There were also other items that displayed high levels including item(1),"I believe code-switching is a positive phenomenon" and item (3), "I see no problem." In other words, two languages are used simultaneously, which shows that there is a general acceptance of the concept of language use of two languages in everyday communication. In contrast, the lowest averages were recorded for item (5), which stated "I prefer using only Arabic without mixing," with an average of 2.90, and item (7), "Code-switching weakens the Arabic language," with an average of 3.10.

The findings in **Table (6)** indicate that the use of code-switching by some demographic variables

differs statistically significantly, whereas no differences were found between the use of other demographic variables. Regarding gender, it was found that there were statistically significant differences ($t = 2.14$, $p = 0.032$) favoring females who had higher mean scores in all the dimensions. Prevalence had a mean score of (4.08) versus (3.95) in males, patterns (4.10) versus (3.92), motivations (4.07) versus (3.98) and attitudes (3.95) versus (3.85). This shows that, females are more prone to use and accept code-switching compared to the male gender. In terms of the level of academic activity, the data revealed that there were statistically significant differences ($F = 3.62$, $p = 0.012$) and that the overall increase in the mean scores is evident with the increase in the level of academic activity. The average value of the prevalence dimension was rising between (3.88) in first-year students and (4.12) in fourth-year students with the same tendencies being observed in the rest of the dimensions. This implies that code-switching is more frequently used as the academic experiences get longer. There were no statistically significant differences in terms of field of study ($F = 1.88$, $p = 0.153$) as the mean scores were quite close to each other in different fields. The prevalence mean was (4.05) of humanities, (4.00) of scientific and (4.02) of medical which means that code-switching phenomenon is prevalent in various academic fields. Moreover, the statistically significant differences were observed based on English language proficiency ($F = 4.21$, $p = 0.015$), as the mean scores with the rise of the levels of proficiency increase. The average prevalence was (3.85), when students were of low proficiency versus (4.15) when they were of high proficiency, and this

was the same in the other dimensions. This is an indication of high relationship between code-switching and linguistic competence. Lastly, there were no statistically significant differences when it came to the university variable ($F = 1.12$, $p = 0.342$) since the mean scores were very close in the various universities. This is an indication that the phenomenon of code-switching is common and consistent in different university setting in Saudi Arabia.

To expand on the dramatic differences expressed by the ANOVA findings, a post hoc was done through the Scheffe test. Considering the level of academic level, the results of this indicator showed that there was a statistically significant difference between first-year students and fourth-year students (Mean Difference = -0.24, $p = 0.011$), between first year students and postgraduate students (Mean Difference = -0.22, $p = 0.018$). Likewise, there were high statistically significant differences between students, which were based on second and fourth years (Mean Difference = -0.17, $p = 0.032$) or between students in second and postgraduate years (Mean Difference = -0.15, $p = 0.041$). Nevertheless, there were no significant differences between third-year students and advanced levels of education ($p > 0.05$). In terms of proficiency in English language, the difference between low and high proficiency of students in terms of mean difference (Mean Difference = -0.30, $p = 0.009$) and between low and moderate levels (Mean Difference = -0.15, $p = 0.045$) statistically favored students with higher level of proficiency. There were no statistically significant differences between the moderate and high proficiency levels ($p > 0.05$).

Table 2: Descriptive Statistics for Code-Switching Prevalence

No.	Item	Mean	Std. Deviation	Level	Rank
1	I use English while speaking Arabic at university	3.85	0.94	High	8
2	I mix Arabic and English during academic discussions	4.18	0.80	High	3
3	I use English words while answering questions	3.92	0.91	High	7
4	Code-switching occurs frequently in lectures	4.12	0.83	High	4
5	I use English when talking to my classmates	3.70	0.99	High	10
6	I notice code-switching among students frequently	4.25	0.74	Very High	2
7	I use English terms in daily communication	4.05	0.85	High	5
8	I switch between languages naturally	3.98	0.88	High	6
9	I switch languages unintentionally	3.79	0.96	High	9
10	Code-switching is common in the university environment	4.32	0.71	Very High	1
Overall Dimension (Code-Switching Prevalence)		4.02	0.76	High	

Table 3: Descriptive Statistics for Code-Switching Patterns

No.	Item	Mean	Std. Deviation	Level	Rank
1	I use English words within Arabic sentences	4.28	0.73	Very High	1
2	I start speaking in Arabic and finish in English	3.95	0.88	High	7
3	I use short English phrases during conversations	4.10	0.82	High	4
4	I mix both languages within the same sentence	4.22	0.79	Very High	2
5	I use English technical terms in my speech	4.18	0.81	High	3
6	I use common English expressions (e.g., sorry, thank you)	4.05	0.85	High	5
7	I use English when giving academic examples	3.98	0.87	High	6
8	I switch languages depending on the topic	3.90	0.90	High	8

9	I use English more in formal situations	3.75	0.95	High	9
10	I alternate between Arabic and English during conversation	3.70	0.98	High	10
Overall Dimension (Code-Switching Patterns)		4.01	0.80	High	

Table 4: Descriptive Statistics for Code-Switching Motivations

No.	Item	Mean	Std. Deviation	Level	Rank
1	I use English because some Arabic terms are not available	4.30	0.72	Very High	1
2	I use code-switching to facilitate understanding	4.22	0.78	Very High	2
3	Code-switching helps me express myself better	4.18	0.80	High	3
4	English is more precise in expressing some concepts	4.12	0.83	High	4
5	Code-switching increases my confidence while speaking	4.05	0.86	High	5
6	I use English due to academic study requirements	4.00	0.88	High	6
7	I use code-switching out of habit	3.95	0.90	High	7
8	I use English to express modern concepts	3.90	0.92	High	8
9	Code-switching saves time during communication	3.80	0.95	High	9
10	I use English due to cultural influence	3.75	0.97	High	10
Overall Dimension (Code-Switching Motivations)		4.03	0.79	High	

Table 5: Descriptive Statistics for Code-Switching Attitudes

No.	Item	Mean	Std. Deviation	Level	Rank
1	I believe code-switching is a positive phenomenon	4.15	0.82	High	3
2	Code-switching helps in learning	4.20	0.80	Very High	2
3	I see no problem using two languages together	4.18	0.81	High	4
4	Code-switching reflects a good educational level	4.05	0.85	High	5
5	I prefer using only Arabic without mixing	2.90	1.10	Moderate	10
6	Code-switching enriches communication	4.12	0.83	High	6
7	Code-switching weakens Arabic language	3.10	1.05	Moderate	9
8	I support using code-switching in education	4.25	0.78	Very High	1
9	Code-switching reflects cultural openness	4.08	0.84	High	7
10	I feel comfortable using both languages	4.00	0.87	High	8
Overall Dimension (Attitudes toward Code-Switching)		3.90	0.81	High	

Table 6: Differences in Code-Switching Dimensions According to Demographic Variables

Category	Prevalence Mean	Patterns Mean	Motivations Mean	Attitudes Mean	Test Value	Sig	Result
Gender							
Male (n=420)	3.95	3.92	3.98	3.85	t = 2.14	0.032	Significant
Female (n=430)	4.08	4.10	4.07	3.95			
Academic Level							
First Year	3.88	3.85	3.92	3.80	F = 3.62	0.012	Significant
Second Year	3.95	3.98	4.00	3.85			
Third Year	4.05	4.08	4.10	3.92			
Fourth Year	4.12	4.15	4.18	3.98			
Postgraduate	4.10	4.12	4.15	3.96			
Field of Study							
Humanities	4.05	4.02	4.08	3.92	F = 1.88	0.153	No Significant
Scientific	4.00	3.98	4.02	3.88			
Medical	4.02	4.05	4.06	3.90			
English Proficiency							
Low	3.85	3.82	3.88	3.78	F = 4.21	0.015	Significant
Moderate	4.00	4.02	4.05	3.90			
High	4.15	4.18	4.20	4.00			
University							
King Saud University	4.05	4.02	4.08	3.92	F = 1.12	0.342	No Significant
King Abdulaziz University	4.08	4.05	4.10	3.95			
Imam Mohammad Ibn Saud Islamic University (IMSIU)	4.00	3.98	4.02	3.88			
King Khalid University	4.02	4.00	4.05	3.90			
Qassim University	3.98	3.95	4.00	3.85			
Taif University	4.03	4.01	4.06	3.91			

4. DISCUSSION

The results of the current research indicate that the code-switching between Arabic and English is a common and properly developed process in the Saudi university setting. This is as indicated by the

high means of the scores in all the dimensions with prevalence dimension registering a mean of 4.02, patterns dimension 4.01, motivations dimension 4.03 and attitudes dimension 3.90. Such findings are aligned with the existing body of literature which

indicates that code switching is now a common activity within multilingual societies, especially when it comes to academic settings where the languages overlap (Hamed et al., 2025; Zaheer et al., 2025).

Regarding the prevalence of the phenomenon, the findings found that the phenomenon of code-switching is highly utilized in the university setting, where the level of commonality of the phenomenon is the highest, the mean score of the item of commonality of the phenomenon is the highest at 4.32. This is an indicator of a general consciousness among the students on the prevalence of this practice. These results are congruent with those of Omar and Ilyas (2018), who emphasized that code-switching is a major language change in Saudi schools of higher learning. They also agree with Hamed et al. (2025), who defined code-switching as one of the major characteristics of the modern Arabic language environment because of multilingualism and diglossia.

Regarding the patterns of code-switching, the results revealed that the most prevalent pattern is intrasentential code-switching with the greatest mean score of 4.28 and use of the English words in Arabic sentences. This implies that students have good linguistic competence. Such findings correspond with Poplack (1980), who proposed that intrasentential switching is an indicator of complex bilingual competence and with Ismail (2015), who concluded that more skilled speakers are also more likely to use more complicated patterns of switching. Also, the result confirms Zaheer et al. (2025) who observed structural union of Arabic and English in discourse.

As far as motivations are concerned, the findings revealed that cognitive and functional motivations are the most effective ones. The object concerning the absence of similar terms in Arabic languages had the best mean score of 4.30 and then facilitating understanding with a mean of 4.22. These results are consistent with those of Omar and Ilyas (2018) and Algethami (2025), who stressed that the application of a code-switching strategy is a method to clarify meaning and enable understanding of complicated concepts. They are also in favor of Alshehri (2025), who discovered that students resort to code switching to achieve more knowledge and gain more confidence with their communication. Nonetheless, such results partly contrast with those studies, which focus on cultural factors as the main motivation, since cultural influence has the lowest mean value of 3.75, which means that the influence of practical and cognitive motivation is more

appropriate than that of culture in this situation.

Concerning the attitude, the findings revealed that students tend to have positive attitudes towards code-switching where the mean of attitude is 3.90. The most prevalent mean score (4.25) was achieved when determining in favor of using code-switching in education. The results are in line with Omar and Ilyas (2018), who showed positive attitudes of students towards code-switching, and with Alhourani (2018), who underlined its effectiveness as a communicative strategy. Nevertheless, the results also found a few reservations since the perception that code-switching undermines the Arabic language got a mean of 3.10. This represents a conflict between linguistic self-preservation and linguistic receptiveness, which also Zaheer et al. (2025) observed.

Regarding the demographic differences, the findings indicated statistically significant differences between the genders in favor of females who reported higher mean scores in all dimensions. The result is in line with Ismail (2015) who concluded that female users are more likely to make use of code-switching. There were also significant differences according to academic level as the mean scores differed between 3.88 in first-year students and 4.12 in fourth-year students. This implies that the frequency of code-switching rises with the academic experience, which is in line with Alsalami (2021), who correlated language switching with the education level.

Besides, there were also significant differences according to English language proficiency where the mean scores of English language proficient students (4.15) were more than less proficient students (3.85). This helps to argue that code-switching is directly related to linguistic competence (Alsalami, 2021). Conversely, there were no significant differences among them, irrespective of the field of study or university; this implies that the code-switching is a generalized phenomenon that cuts across academic fields and institutional settings. This affirmation is in line with earlier studies that highlight the prevalence of code-switching in bilingual communities.

Conceptually, the research has been an addition to the sociolinguistic knowledge on code-switching by offering a model that is all-encompassing; it is a compilation of prevalence, patterns, motivations, and attitudes in a single empirical framework. This fills the gap which has been identified in earlier studies. More to the point, the conclusions confirm the important theoretical frameworks e.g., the Matrix Language Frame Model (Myers-Scotton, 1993) and Communication Accommodation Theory

(Giles, 1973), by providing empirical Saudi context.

On the practical level, the results have significant implications on the educational policy and practice. They emphasize the need to view code-switching as a useful pedagogical tool and not a negative phenomenon. These findings can be used in designing instructional programs that facilitate the process of bilingual learning and improve the capacity of learners to utilize both languages in their educational institutions. Summing up, the paper shows that code-switching is not the phenomenon strictly linguistic but a complicated communicative and cognitive process, which indicates the greater linguistic and cultural changes in modern Saudi society.

Although the scientific and practical significant of this study in terms of explaining the phenomenon of language switching between Arabic and English in the Saudi university setting, there are indeed several limitations that need to be addressed when explaining the findings. The research has been dependent on quantitative approach using a questionnaire that might restrict an in-depth interpretation of the situation and interactive aspects of the phenomenon since the results provided by the respondents are still under self-reflection and cognitive bias. Moreover, convenience sampling can have somewhat an impact on the generalizability of results, but the sample is quite diverse in terms of universities, disciplines, and academic levels, which is rather reasonable to increase the sample representativeness of the target population.

As far as the generalizability of the findings is concerned, the relative stability of the means between the universities and the lack of statistically significant differences according to the university variable shows that the language switching is a prevalent characteristic in different environments of Saudi universities. This helps justify the risk of making a tentative generalization of the findings to other educational settings in the Kingdom. Nevertheless, the inference about the findings into the general context of other geographical and cultural settings is possible with the help of additional comparative research.

With these constraints, the research suggests the use of qualitative or mixed methods in future studies to explore the use of language switching in real-world contexts of interaction like lectures and discussions in classrooms. It also indicates the further investigation of the phenomenon to various levels of education or to compare it with the one in several Arab countries to evaluate the impact of cultural and educational variables. Moreover, the

focus may be on the investigation of language switching concerning the current technologies including AI and digital discourse analysis.

On the practical level, the research suggests applying the flexible approach to teaching methods that enable the systematic use of the language switching in the classrooms, thus, contributing to the increased level of knowledge and the possibility to grasp complicated ideas. It further recommends the faculty to be trained on the use of language switching as a powerful tool of pedagogy, but not as a negative language use. Moreover, the balanced educational language policy must be created considering the need to retain Arabic and, at the same time, use English in the sphere of science and technology, as it is the characteristic of the multilingual educational environment today.

5. CONCLUSION

This study aimed at exploring the phenomenon of code switching between Arabic and English among Saudi Arabian university students with regard to its frequency, patterns, motivations, attitudes, and demographic differences. The results have shown that code-switching is an extremely common and accepted behavior in the university setting that is demonstrated by the average scores that are high and stable throughout all dimensions. The findings revealed that students often code-switch in school and their daily life, and intrasentential switching turned out to be the most prevailing one. This implies that the bilingual competence is high as students will be able to combine the aspects of the two languages in one discourse. Also, the conclusions revealed that cognitive and functional motivation (facilitating understanding and bridging lexical gap) is the main motivation of code switching, not necessarily cultural or social factors. Moreover, the researchers established that students tend to have positive sentiments about code-switching, especially in an educational setting, where it is viewed as a convenient mechanism that improves understanding and engagement. Nevertheless, there is still a degree of concern that it will affect the Arabic language, as it is an indication of a continued balance between language identity and the global demands of communicated communication. About demographic differences, it was found out that code-switching depends on gender, academic level, and the level of mastering English language. Increased use of code-switching was found among female students, students in the advanced levels of studies and students with higher English proficiency. Conversely, there were no

remarkable differences as identified by the field of study or the university, which is an indication that the phenomenon is prevalent and uniform in various academic settings. All in all, the study establishes the fact that code-switching is not a chance or peripheral language phenomenon, but a functional and organized communicative activity, which can demonstrate the dynamic interplay of language, thinking, and social situation in the multilingual settings. It also supports the opinion that code-switching serves a significant purpose in the development of the current linguistic practices in Saudi higher education.

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ETHICAL CONSIDERATIONS

This research was conducted in accordance with ethical research standards. Prior to data collection, participants were informed about the purpose of the study and their voluntary participation. Informed consent was obtained from all participants. The data were used solely for scientific research purposes and were treated with strict confidentiality. No personal identifiers were collected, and participants were free to withdraw from the study at any time without any consequences.

CONFLICT OF INTEREST

There is no conflict of interest between the author and any other person.

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