Generational shifts in bilingual communication: A comparative study of English-Arabic code-mixing in Saudi Arabia

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ABSTRACT

In an increasingly globalized and digitally mediated world, bilingual communication has become central to everyday interactions, particularly in linguistically diverse societies such as Saudi Arabia. English-Arabic code-mixing is widespread across generations; however, existing research has largely focused on younger speakers or specific contexts like education, leaving a gap in understanding how bilingual practices vary by age. This study investigates generational differences in English-Arabic code-mixing among bilingual speakers in Saudi Arabia and explores linguistic and social factors influencing younger speakers' practices. Using a mixed-methods design, the study collected both quantitative and qualitative data from 89 participants across three age groups (16–30, 31–45, and 46–60) through a questionnaire. Findings revealed significant generational differences: older and middle-aged participants reported prevalent code-mixing in professional and peer settings, while younger speakers used it more selectively and contextually. Analysis of open-ended responses from younger participants highlighted identity expression, audience awareness, lexical gaps, and digital media as key drivers of code-mixing. These findings challenge assumptions that younger speakers code-mix more, suggesting instead a shift toward intentional, socially informed bilingual communication. The study contributes to sociolinguistic literature by emphasizing the evolving role of digital platforms, peer dynamics, and intergenerational norms in shaping bilingual practices across multilingual contexts.

Contribution/ Originality: This study is one of the few investigations into generational differences in English-Arabic code-mixing in Saudi Arabia. It documents that older speakers tend to code-mix more frequently, whereas younger speakers adopt a more selective approach that is influenced by social factors, including identity, audience awareness, and digital media. The findings highlight the evolving nature of bilingual language use among different age groups and underscore the importance of social context in language behavior.

1. INTRODUCTION

In the past few decades, the use of English as a means of communication in Saudi Arabia has grown from an unfamiliar language to a socially relevant one. For the older generations, lack of access to formal education created inconsistent levels of English proficiency. However, due to global travel, studying in different countries, digital platforms, and private schools, exposure to the English language has greatly increased. Now, English is a part of daily conversation, particularly among young Saudis, who freely use English words and phrases regardless of their actual fluency (Alsalami, 2021).

These changes demonstrate emerging patterns of bi-dialectalism, where people tend to borrow words and phrases from a second language and weave them into their native language. This phenomenon can be observed in Saudi

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Arabia, where both English and Arabic are used side by side in numerous official and casual contexts. The impact of the English language is particularly evident among the youth, as they have grown up in a digitally saturated environment with exposure to English media, as well as English language education and communication tools (Atay, 2024; Tarihoran, Fachriyah, & Sumirat, 2022). This exposure has led to changes in language adoption and preservation, often resulting in the increased use of English and endangering the intergenerational transmission of Arabic (Gomashie, 2022). It is important to understand these shifts and patterns because they affect not only personal linguistic and cultural identity but also the collective identity of the nation and its culture.

An important sociolinguistic result of the two-language setting is code-mixing, which is defined as the blending of grammatical and lexical resources from two languages within a single utterance (Myers-Scotton, 2006; Wardhaugh, 2010). While the act of switching codes (code-switching) occurs at the sentence or clause level, code-mixing is more fluid and occurs at the word or phrase level, often subconsciously. Code-mixing has become a dominant characteristic of bilingual discourse across Saudi Arabia, especially among the younger population, who tend to incorporate English phrases into Arabic. This practice reflects social and cultural identity and demonstrates a strong connection to digital and social media platforms.

Although there is an increase in visibility regarding bilingual practices in the Arab world, there is a lack of attention to the study of generational differences in English-Arabic code-mixing within the context of Saudi Arabia. Most previous research studies focused on a single age group, primarily on younger populations, or even more narrowly on specific environments such as schools (Fadliyah, Dollah, & Muhayyang, 2023; Haryati & Prayuana, 2020). Very few attempted to adopt a more balanced approach by examining multiple, evolving, and contrasting cohorts. This is particularly important in light of recent societal shifts that view English as an indicator of education, professionalism, and modernity (Alomoush, 2023).

In an effort to address this gap, the current study analyzes the differences in the practices of English-Arabic code-mixing across three generational groups in Saudi Arabia: younger (16–30), middle-aged (31–45), and older speakers (46–60). Based on a structured questionnaire that includes both closed and open-ended questions, this study aims not only to determine the extent and nature of code-mixing but also to explore the social and linguistic factors particularly among younger speakers, that have contributed to these behaviors. The specific objectives guiding this research are outlined through the following questions:

R1: What are the different practices of English-Arabic code-mixing among various generations in Saudi Arabia?

R2: What linguistic and social factors influence English-Arabic code-mixing among younger generations in Saudi Arabia?

Through this inquiry, the study contributes to a deeper understanding of language maintenance, generational language shift, and the sociolinguistic implications of bilingualism in a rapidly globalizing society. By shedding light on these evolving linguistic practices, it aims to inform educators, policymakers, and linguists concerned with the future of bilingual education and the preservation of Arabic. Accordingly, it adds to the debates on identity and interaction, as well as the impact of language use in Saudi Arabia in relation to the rest of the world.

2. REVIEW OF LITERATURE

2.1. Bilingual Communication: Definitions and Contexts

Bilingual communication involves the alternating use of two or more languages within a discourse setting, such as conversations, professional dialogues, or educational environments. Within this context, two important concepts are code-switching and code-mixing, which are essential for understanding bilingualism. Poplack (1980) describes code-switching as the shifting of discourse languages at sentence or clause boundaries, typically due to changes in topic, setting, or audience. Code-mixing, on the other hand, differs in that it involves integrating elements from two languages within a single sentence or utterance, resulting in a blended construction that reflects multiple sociolinguistic systems (Muysken, 2000).

These types of bilingual behaviors are aimed at fulfilling certain sociolinguistic phenomena: social identity, cultural positioning, among others. In the context of bilingual and multilingual societies, speakers tend to use these forms to negotiate through multiple social worlds. For example, older speakers may use code-switching as a practice to negotiate social boundaries and align with specific identities, while younger speakers tend to mix languages effortlessly as a result of their transnational upbringing (Sharaf, 2014).

Such practices also connect to communicative competence, which encompasses accuracy in grammar alongside proficient use of language within appropriate social frameworks (Hymes, 1972). The ability to conduct bilingual communication varies across different generations, influenced by the availability of language learning opportunities, exposure to multilingual cultures, and societal norms associated with each language.

2.2. Generational Shifts in Bilingualism

Shifts in bilingualism encompass variations in language use, preferences, and interaction styles across different age groups within bilingual or multilingual societies. These shifts, grounded in sociolinguistic paradigms of dialectal change, are influenced by factors such as technology, culture, and the socio-political landscape unique to each generation (Fishman, 1991). The availability of multilingual educational opportunities, migration trends, and intergenerational views on language and identity contribute to these shifts. Perhaps most interesting is the difference with Generation Z, shaped by who they are digitally native. Unlike older generations, those in Gen Z have been raised by the internet, social media, AI, and multimedia technologies fundamental to their cultural identity and language practices (Atay, 2024).

To examine such shifts, researchers turn to frameworks such as CAT (Communication Accommodation Theory) by Giles and Coupland, or Labov's Variationist Model. Speakers change their language to either align with or move away from the speech patterns of others based on societal influences, social closeness, and identity (Giles & Coupland, 1991). This concept assists in understanding how different generations adapt or resist sociolinguistic change, including code-mixing. In contrast, Labov's model focuses on the more social aspects of language change in accordance with time (Labov, 1972) and explains the progression of multilingual phenomena through the lens of shifting social norms across generations.

2.3. The Role of Digital Media in Generational Language Shifts

Digital media plays a crucial role in influencing language change, especially among younger populations. Bilingual users now have access to various platforms for interaction and communication, such as WhatsApp, Instagram, TikTok, and YouTube, which promote or normalize code-mixing. These platforms facilitate what Aeni (2019) describes as multimodal bilingualism, integrating verbal and non-verbal means, including visuals, emojis, memes, and hashtags, to enhance identity expression and creative intent.

The concept of translanguaging, introduced by García (2009) refers to the effortless use of all linguistic resources available to a bilingual speaker. This concept is particularly relevant in contexts where digital media facilitates language fluidity by allowing users to bypass traditional language structures, enabling them to switch freely between English and Arabic. Tarihoran et al. (2022) emphasizes that this phenomenon of blending languages serves as a means for younger Saudi Generation Z individuals to express their identity, creativity, and global connectivity. The integration of multiple languages in digital communication reflects a dynamic linguistic landscape, where language boundaries become more permeable, fostering cultural exchange and individual expression.

On the contrary, people from older generations are more inclined to display inflexible language boundaries, which stems from a digitally less literate population as well as differences in socialization. The phenomenon that has emerged due to different generations being exposed to technology shows that it has transformed not only the medium but also the framework and the amount of bilingual expressions used.

2.4. Review of Empirical Studies on Code-Mixing

The phenomenon of code-mixing has been extensively studied in relation to various social, educational, and digital contexts. Alsalami (2021) conducted qualitative research on bilingual conversations during natural discourse within the Saudi context. His findings indicated that language is primarily used for social purposes, especially in informal settings, among bilinguals who need to negotiate their identity and audience.

Fadliyah et al. (2023) conducted a descriptive qualitative analysis of EFL classroom presentations, demonstrating that learners use their vernacular alongside English as a means of understanding, maintaining academic interaction, and showcasing their bilingual identity. Although this study was not conducted in Saudi Arabia, it is relevant for considering how students in EFL environments strategically utilize language. This example highlights the importance of recognizing students' linguistic choices and their impact on learning and identity expression in bilingual settings.

Tarihoran et al. (2022) examined the issue of code-mixing in Generation Z and its relation to social media. Their study concluded that young digital users are capable of linguistically experimenting by blending languages as they express their personal and social identities. This phenomenon highlights the extent to which communication technology fosters creativity in language use and challenges traditional language boundaries.

Focusing on Instagram and WhatsApp conversations, Aeni (2019) classified types of code-mixing and documented recurring motifs. Her study illustrated how interaction through visuals and contexts digitally heightens the impulse to creatively blend languages. Although conducted in a non-Arabic speaking context, the value of this study lies in its methodological approach and its relevance to informal multilingual practices.

More relevant to studying specific generations is the work of Yusnida, Muliawati, and Rezeki (2022) who descriptively analyzed the types of code-mixing employed by younger individuals in their online interactions. Based on their analysis, the authors found that insertion was the most prevalent form of code-mixing, followed by alternation and congruent lexicalization. This typology not only explains the structural aspects of code-mixing but also confirms the observation that the younger population is readily adopting bilingual speech, influenced by technology and global media.

At a higher analytical level, Liu, Yu, and Liu (2021) conducted a bibliometric analysis to map the knowledge domain of code-switching research over five decades. Utilizing more than a thousand peer-reviewed publications, their review uncovered significant thematic shifts, including the decline of classroom-centric studies in favor of research focused on identity, globalization, and technology. They also highlighted a notable interdisciplinary shift, incorporating more psychology, education, and communication studies. Perhaps most strikingly, the review underscored a decreasing emphasis on research solely focused on youth bilingualism and digital code-mixing as vital components of contemporary language contact. These trends further emphasize the importance and urgency of the present study.

Gasiorek and Dragojevic (2023) provided complementary insights into the impact of written code-mixing on processing fluency and perceptions of inclusiveness. They argue that code-mixing serves important cognitive and social functions by enhancing group communication efficiency and signaling membership within a group. The study's scope was within professional and organizational contexts, but it can be extrapolated that younger individuals, particularly in multilingual societies such as Saudi Arabia, may similarly benefit from code-mixing in navigating bilingual communication effectively.

Focusing on the continuum of language dominance and mixing behavior, Poeste, Müller, and Arnaus Gil (2019) examined code-mixing in children who were bilingual, trilingual, and multilingual. They concluded that although children had the ability to maintain monolingual discourse when appropriate, contextually dominant domains could lead to increased mixing. They observed a lack of a straightforward association between language dominance and the frequency of mixing. Instead, closeness in language typology influenced the type of code-mixing employed. All intra-sentential code-mixing observed was insertional. Rather than viewing dominance as the sole factor, these insights

suggest a complex interplay between linguistic and contextual factors a perspective relevant to analyzing generational bilingualism in Saudi Arabia.

Saudi Arabia's context of English-Arabic code-mixing across generations remains under-researched, despite the significant contributions of existing studies. Most research focuses on specific age groups, social media, or classroom settings. This study aims to fill the gap by analyzing code-mixing across three generational groups, providing a more comprehensive view of sociolinguistic change in a digitally mediated bilingual society.

3. METHODS

3.1. Research Design

The current study employed an exploratory mixed-method design that integrated both quantitative and qualitative data to provide a comprehensive understanding of English-Arabic code-mixing across different age groups. Data were collected through a questionnaire comprising both open-ended and closed-ended questions. The quantitative component facilitated standardized data collection and enabled statistical comparisons among different generations. Meanwhile, the qualitative component allowed for thematic analysis of responses to open-ended questions, offering deeper insights into respondents' language practices and the social motivations underlying their language use. This research design was appropriate given the dual objectives of identifying patterns of code-mixing and examining the linguistic and social factors influencing bilingual practices.

3.2. Participants

The study recruited participants who self-identified as bilingual in Arabic and English and who regularly used both languages in daily communication through a purposive sampling strategy. The inclusion criteria required that participants be functionally bilingual, capable of reading, writing, and speaking both languages at least moderately well. A total of 89 participants were recruited, stratified into three generational cohorts based on birth year.

- Older Adults (born before 1980): n = 15 (16.85%)

  This group comprises individuals who experienced limited formal English instruction and minimal exposure to digital technology during their formative years. Their linguistic practices are influenced by traditional sociolinguistic norms and pre-globalization language policies. The cohort was recruited through snowball sampling initiated by friends and colleagues, with initial contacts in Riyadh, Dammam, and Qassim. Participants included retired professionals, community elders, and older bilinguals with little digital activity and no formal educational affiliations. This indirect recruitment approach facilitated access to older bilinguals who are less active on digital platforms and may not be affiliated with formal institutions.

- Middle-Aged Adults (born 1980–1994): n = 23 (25.84%)

  This cohort grew up during a period of increasing globalization and expanding access to English-language education and digital media. Their bilingual experience is characterized by transitional exposure to both analog and digital communication technologies. Their recruitment originated from professional workplaces, government offices, and adult education programs across Riyadh and the Eastern Region. This cohort reflects bilingual individuals whose linguistic practices have been shaped by shifting language policies, workplace communication demands, and growing digital engagement during adulthood.

- Younger Adults (born after 1994): n = 51 (57.30%)

  Often referred to as digital natives, this group has been raised in a highly interconnected, bilingual environment. Their code-mixing behaviors are likely influenced by widespread exposure to English through social media, entertainment, and education. This group includes undergraduate and graduate students recruited from universities such as Imam University, King Saud University, and Princess Noura University. Their bilingualism is shaped by a globally connected environment and daily interaction with digital content in both Arabic and English.

The generational grouping aimed to capture sociolinguistic variability linked to technological access, educational policy, and global media exposure, all of which are hypothesized to influence code-mixing patterns.

3.3. Research Instrument

The study employed a structured questionnaire titled Generational Shifts in Bilingual Communication Questionnaire (see Appendix A), developed to investigate English-Arabic code-mixing practices among bilingual speakers in Saudi Arabia. The instrument consisted of three components. The first gathered demographic information, including age group (16–30, 31–45, 46–60), gender, education level, languages spoken fluently, and the age at which English was first acquired. These variables enabled appropriate grouping and contextualization of participants' responses.

The second component included a set of Likert-scale items (1 = Strongly Disagree to 5 = Strongly Agree) designed to measure various aspects of code-mixing behavior. These items captured participants' language practices concerning peer interaction, generational communication patterns, digital usage, emotional expression, and formal versus informal settings. All items were analyzed collectively and grouped thematically during the analysis phase to identify behavioral trends and generational differences in bilingual communication.

The questionnaire concluded with two open-ended questions that explored participants' motivations for code-mixing and their language choices when interacting with people of different age groups. These qualitative items were directed only at participants aged 16–30, who received a separate link to facilitate targeted data collection focused on younger bilinguals.

The instrument was developed in English and underwent expert review for clarity, relevance, and face validity. Internal consistency for the Likert-scale items was assessed using Cronbach's alpha, yielding a coefficient of 0.89, indicating high reliability.

3.4. Data Collection Procedures

Data were collected over a two-week period using an online questionnaire administered via Google Forms. The survey link was distributed through institutional email lists, university student groups, and targeted social media messages (e.g., WhatsApp, Twitter/X, and LinkedIn) to individuals who met the study's inclusion criteria namely, bilingual speakers of Arabic and English with regular use of both languages. To enhance participation, follow-up reminders were sent during the second week of the data collection period. After two weeks, the survey was closed, and responses were securely downloaded for subsequent analysis.

Participants were fully informed about the purpose of the study, the voluntary nature of their participation, and their right to withdraw at any time without penalty. Informed consent was obtained prior to participation, and respondents were assured that the data collected would be used exclusively for research purposes. Confidentiality was strictly maintained, and no identifying information was collected or disclosed in any reports or publications. The study adhered to standard ethical guidelines for research involving human participants.

3.5. Data Analysis

The dataset included both quantitative and qualitative components. Quantitative responses from Likert-scale items were analyzed using descriptive statistics, such as means, standard deviations, and frequencies, to summarize patterns of English-Arabic code-mixing across different generational groups. Normality testing with the Shapiro–Wilk test indicated non-normal distributions for most items, which necessitated the use of non-parametric statistical methods. To address Research Question 1 (R1), the Kruskal–Wallis H test was employed to identify significant differences among the three age groups. Following this, Mann–Whitney U tests with Bonferroni correction were conducted for post hoc pairwise comparisons to determine specific group differences.

For the qualitative component, responses to two open-ended questions were subjected to thematic analysis. Initial

open coding produced key phrases such as "speaking to older people," "online conversations," and "can't find Arabic word," which were then grouped into broader themes. These included audience awareness, digital media influence, identity expression, and topic-driven lexical choices. For example, younger participants described switching to English in emotional or humorous contexts, or when referencing social media content, while also avoiding English with older speakers to show respect. These themes were interpreted through sociolinguistic frameworks such as Myers-Scotton's Markedness Model, with a focus on the responses of participants aged 16–30 to address Research Question 2 (R2). Together, the quantitative and qualitative analyses provided a comprehensive view of generational variation and the social motivations underlying code-mixing in Saudi Arabia.

4. RESULTS

4.1. RQ1: Generational Differences in English-Arabic Code-Mixing

To examine how English-Arabic code-mixing practices vary across generations, a Kruskal–Wallis H test was conducted on 11 Likert-scale items. Three items showed statistically significant differences between age groups: switching with peers ($H(2) = 11.28$, $p = 0.003$), mixing with same-generation individuals ($H(2) = 15.44$, $p < 0.001$), and code-mixing in tech/work contexts ($H(2) = 21.29$, $p < 0.001$). Descriptive statistics for all items across the three age groups are summarized in Appendix B.

Follow-up pairwise comparisons using Mann–Whitney U tests with Bonferroni correction (Table 1) revealed that older adults (46–60) are significantly more likely to switch languages in peer interactions and technical discussions than younger participants (16–30). Middle-aged participants (31–45) also differ significantly from younger participants in their frequency of mixing languages with peers and same-generation interlocutors. No significant difference was found between the 16–30 and 31–45 groups regarding switching languages with peers ($p = 0.429$).

Table 1. Pairwise comparisons across generational groups for code-mixing items with significant Kruskal–Wallis results (Bonferroni-adjusted p-values).

Item	Comparison	U-statistic	Adj. p-value
Switching with peers	16–30 vs. 46–60	50.0	0.0015
	31–45 vs. 46–60	66.0	0.0156
	16–30 vs. 31–45	108.0	0.4290 (ns)
Mixing with same generation	16–30 vs. 46–60	53.5	0.0021
	16–30 vs. 31–45	49.5	0.0015
	31–45 vs. 46–60	73.5	0.0366
Tech/Work context	16–30 vs. 46–60	28.5	0.0003
	16–30 vs. 31–45	37.0	0.0009
	31–45 vs. 46–60	89.5	0.0324

Overall, the data suggest that code-mixing behaviors vary significantly across age groups, particularly in informal peer interactions and professional or technology-related discourse. These patterns support the hypothesis that generational exposure to English and digital media shapes bilingual practices in distinct ways.

4.2. RQ2: Linguistic and Social Factors Influencing Code-Mixing in Younger Generations

To answer Research Question 2 (RQ2), *what linguistic and social factors influence English-Arabic code-mixing among younger generations in Saudi Arabia?* a thematic analysis was conducted on participants' responses to two open-ended items. The responses from participants aged 16–30 revealed several recurring motivations and situational patterns in their use of both English and Arabic.

4.2.1. Code-Mixing as a Form of Expression and Identity

Many younger participants reported that mixing English and Arabic allowed them to express ideas with greater ease, clarity, and emotional resonance. One respondent explained, *"Mixing both languages helps me deliver my meaning*

better," while another emphasized that it *"just feels more natural to express myself using both."*

4.2.2. Context-Sensitive Language Choices

Participants demonstrated a clear awareness of how language choices vary depending on the audience. Code-mixing was frequent with peers, but many reported minimizing English use when speaking with older individuals out of respect or clarity. As one participant noted, *"Whenever I am speaking to a person older than me, I try my best to speak in Arabic."* Another stated, *"I tend to speak more Arabic with older people because I think they may not fully understand."* This context-sensitive adaptation illustrates Myers-Scotton's Markedness Model, where bilinguals choose the 'unmarked' (socially expected) code in formal or hierarchical settings.

4.2.3. Functional Motivations and Lexical Gaps

Several participants pointed to lexical necessity as a driver for code-mixing, particularly when discussing technology, media, or academic content. As one respondent shared, *"Sometimes, I just can't find the right word in Arabic, so I use the English term instead."* This cognitive aspect of bilingualism reflects the influence of English as the dominant language in technical and digital domains. Such usage was also evident in the closed-ended responses, where younger participants reported more frequent code-mixing in work- or tech-related conversations.

4.2.4. Peer Affiliation and Social Bonding

Code-mixing among peers was described as intuitive and reinforcing of identity. One participant remarked, *"With my friends, it's just natural to mix both languages."* Another stated, *"In my age group, we speak more freely. The first word that comes to mind English or Arabic I just say it."* These responses indicate that code-mixing functions as a marker of in-group solidarity, particularly within youth culture. It also serves humorous or stylistic purposes, especially when referencing memes, trends, or pop culture: *"Sometimes I use English words just for fun or to reference something trending on social media."*

4.2.5. Influence of Digital Media and Platform Culture

Digital media has emerged as a significant influence on code-mixing practices. Language blending is normalized on platforms such as Instagram, TikTok, and WhatsApp because they promote a multimodal form of communication. Respondents frequently discussed how bilingual or English-dominant content influences their daily speech: "Younger age groups seem to be more accepting... older people tend to be annoyed or irritated," one respondent stated. Another respondent noted, *"If they are mastering English like me, I would practice code-mixing more."*

5. DISCUSSION

This research focused on the social and linguistic factors that influence the behaviors of younger generations within the spectrum of bilingual English-Arabic code-mixing in Saudi Arabia, which varies across different age groups. The results indicated that code-mixing is contextually sensitive to age and differs depending on various factors, including the audience, engagement with digital media, and media consumption habits. While older respondents reported higher overall frequencies of code-mixing in specific contexts, younger participants demonstrated a more contextually sensitive form of bilingual communication. These findings challenge widely held beliefs about the evolution of language fusion over time, revealing new aspects of bilingual identity, integration, and linguistic flexibility.

5.1. Generational Variation in Code-Mixing (RQ1)

Falling under the expectation that younger speakers tend to code-mix more frequently, the older and middle-aged participants (aged 31-60) reported significantly higher instances of code-mixing, especially in discussions among

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peers and in professional or technical conversations. This indicates that the younger segment of the population may be more discreet and strategic concerning their use of code-switching, likely shaped by audience awareness that is sensitive to social situational context.

While these findings run counter to widespread assumptions about bilingual youth literature, they align with Aeni (2019) who noted the impact of digital media on the multilingual practices of different generations.

Younger individuals might engage more consciously in digital environments by code-mixing English only in informal and expressive contexts or among peers. This interpretation is supported by Tarihoran et al. (2022) which emphasizes that Generation Z tends to be multimodally bilingual using languages and digital tools such as emojis, memes, and hashtags to construct meaning and signal identity.

These differences across generations highlight more profound sociolinguistic changes. Older speakers may experience a greater tendency for code-mixing due to habit, professional needs, or exposure to English for work and education. Conversely, younger speakers tend to use bilingual resources more strategically, drawing from shifting norms influenced by the digital age and increased social awareness. These observations reveal a developing concern across generations regarding the timing and contexts in which bilingualism and code-mixing are used and accepted. This reinforces the notion that bilingualism is increasingly shaped not only by age but also by media literacy and social context.

5.2. Social and Linguistic Factors in Youth Code-Mixing (RQ2)

The thematic analysis of open-ended responses from younger respondents aged 16 to 30 provided valuable insights into motivations for code-mixing. Several key themes emerged, including identity expression, audience awareness, lexical necessity, peer influence, and media exposure.

Respondents characterized code-mixing as a form of communication that is natural and expressive, especially in emotional and funny interactions. This supports Alsalami (2021) observation that bilinguals tend to use code-switching as a means of identity construction in informal contexts. It also aligns with Fadliyah et al. (2023) who reported students utilizing language mixing to express clarity and emotion during class discussions. The younger participants reasoned that code-mixing was not evidence of linguistic deficiency but rather a means to align socially and express oneself.

Audience design also played a significant role. Older friends were considered less competent, while peers and friends were regarded as being on the same level. Consequently, many participants reported using less English out of respect or to facilitate understanding with older addressees, which increased code-mixing with peers. Myers-Scotton's Markedness Model offers a sound rationale for this behavior, suggesting that bilingual speakers choose the socially 'unmarked' code in accordance with expected norms. In this context, Arabic functions as the default language in formal or intergenerational interactions, whereas code-mixing is a marked alternative used primarily among peers.

Code-mixing was also driven by lexical gaps, particularly in the fields of work or technology, which are dominated by English. A number of participants argued that they preferred using English phrases when their Arabic counterparts were vague or not well known to them. This reasoning aligns with observations by Poeste et al. (2019) in which bilinguals and multilinguals were found to borrow more often from the language most relevant to a particular domain.

Lastly, this section discusses the profound impact of digital media. Respondents specifically mentioned WhatsApp, Instagram, and TikTok as environments where English-Arabic code-mixing was not only accepted but anticipated. These results are consistent with earlier work by Yusnida et al. (2022), Aeni (2019), and Tarihoran et al. (2022) who highlighted the impact of online platforms in cultivating informal bilingual hybrid linguistic norms and informal bilingualism. Collectively, these understandings validate that code-mixing among Saudi youth is not a random or passive practice: it is intentional, identity-based, socially contextualized, and strategically driven. Choices of language are determined by the context, participants, purpose, and the nature of digital spaces. The results depict

a picture of dynamic and technologically driven bilingualism.

6. CONCLUSION

This study examined changes in English-Arabic code-mixing among bilingual speakers in Saudi Arabia. It aimed to understand how bilingual communication varies across different age groups in a rapidly digitalizing environment. Using a mixed-methods approach, the research collected both quantitative data and personal opinions through a structured questionnaire. The results indicate that older and middle-aged participants reported more frequent instances of code-mixing in specific contexts. Conversely, younger individuals, aged 16 to 30, employed bilingual resources more selectively and strategically, especially in social, emotional, and digital settings. Their language choices were influenced not only by the necessity for effective communication but also by their awareness of the audience, peer interactions, and media-driven communication patterns. These findings highlight the importance of sociolinguistic theories, such as Myers-Scotton's Markedness Model, in understanding how bilingual speakers make language choices across different generations. Code-mixing serves as more than just a quick communication tool; it is a socially rooted practice for expressing identity, managing relationships, and meeting specific expectations of different platforms. Younger speakers are particularly sensitive to context, adjusting their code-mixing based on the age, fluency, and familiarity of those they are talking to. Several implications arise from these findings. First, language policymakers and sociolinguists should consider the impact of digital media and generational changes when addressing issues of language maintenance and shift. The increasing normalization of English-Arabic code-mixing especially among youth suggests that bilingual norms are evolving and should be recognized as such. Second, school departments and EFL educators may benefit from aligning curricula with students' actual language practices. Rather than viewing code-mixing as a deficit, it can be approached as a legitimate and adaptive form of bilingual communication. Third, EFL students and graduates should be encouraged to view their bilingual proficiency not only as an academic skill but also as a sociocultural and professional asset in a globalized world.

While this study successfully addressed its research questions, it also faced certain limitations. The use of a structured questionnaire, although effective for comparative analysis, may have restricted the depth of participant insights compared to more open qualitative methods such as interviews or focus groups. Additionally, the focus on English-Arabic bilinguals in Saudi Arabia limits the generalizability of the findings. Future research should expand to include more diverse linguistic communities, alternative language pairings, and methodological approaches such as discourse analysis to further explore the dynamic nature of code-mixing across social and cultural contexts.

Ultimately, this study contributes to the growing body of literature on bilingualism in the digital age, offering evidence that generational, technological, and social variables play a critical role in shaping how and why individuals engage in code-mixing. It affirms that bilingual communication is not static but fluid and adaptive, reflecting both the realities and the identities of its speakers.

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Appendices

Appendix A: Generational Shifts in Bilingual Communication Questionnaire.

Section 1: Demographic Information

- Age Group: □ 16–30   □ 31–45   □ 46–60
- Gender: □ Male   □ Female
- Highest Level of Education: □ High School   □ Undergraduate Degree   □ Graduate Degree   □ Other (please specify): _____
- Age at Which You Started Learning English (if not native):   □ 0–5 years   □ 6–12 years   □ 13–18 years   □ 19+ years
- How would you describe your proficiency in each language? *(Please rate each skill using the following scale: 1 = Not at all, 5 = Native-like)*
- Arabic – Speaking: ____   Writing: ____   Reading: ____
- English – Speaking: ____   Writing: ____   Reading: ____

Section 2: Code-Mixing Practices

(Scale: 1 = Strongly Disagree   5 = Strongly Agree)

1. I often switch between English and Arabic when I am speaking with friends and peers.
2. I mix English and Arabic more frequently with people from my generation than with older or younger people.
3. I use English words or phrases in Arabic sentences when discussing topics related to technology or work.
4. In conversations with older family members, I tend to use more Arabic than English.
5. When I communicate in formal settings, such as at work or school, I minimize the use of code-mixing.
6. My choice to mix English and Arabic depends on the language proficiency of the person I am speaking to.
7. When I communicate online (e.g., on social media, messaging apps), I tend to use a mix of English and Arabic.
8. I find it easier to express my feelings or thoughts using a combination of English and Arabic rather than sticking to one language.
9. I use English words when I want to emphasize a point or sound more modern.
10. I frequently switch between English and Arabic when discussing hobbies, pop culture, or entertainment.
11. I tend to mix English and Arabic more when speaking with friends than when speaking with family.

Section 3: Open-Ended Questions

(*These questions were presented only to participants aged 16–30.*)

17. Please describe a situation in which you use both English and Arabic. What factors influence your choice to switch between the two languages?
18. How does your code-mixing behavior differ when communicating with people of different age groups (e.g., younger versus older)?

Appendix B. Descriptive statistics for code-mixing items by age group.

Item	16–30 (M)	16–30 (SD)	31–45 (M)	31–45 (SD)	46–60 (M)	46–60 (SD)
1. I often switch between English and Arabic when I am speaking with friends and peers.	2.86	1.5	3.82	1.22	4.07	1.39
2. I mix English and Arabic more frequently with people from my generation than with older or younger people.	2.47	1.49	4.0	1.41	3.47	1.55
3. I use English words or phrases in Arabic sentences when discussing topics related to technology or work.	2.06	1.15	3.73	1.2	3.2	1.7
4. In conversations with older family members, I tend to use more Arabic than English.	1.33	0.93	1.55	1.14	2.2	1.78
5. When I communicate in formal settings, such as at work or school, I minimize the use of code-mixing.	2.33	1.34	1.68	1.25	2.2	1.52
6. My choice to mix English and Arabic depends on the language proficiency of the person I am talking to.	1.72	1.05	1.45	1.05	2.42	1.44
7. When I communicate online (e.g., on social media, messaging apps), I tend to use a mix of English and Arabic.	2.41	1.42	3.68	1.55	3.2	1.66
8. I find it easier to express my feelings or thoughts using a combination of English and Arabic rather than sticking to one language.	2.98	1.54	3.91	1.51	3.67	1.68
9. I use English words when I want to emphasize a point or sound more modern.	2.88	1.35	3.41	1.47	4.0	1.51
10. I frequently switch between English and Arabic when discussing hobbies, pop culture, or entertainment.	3.02	1.46	4.09	1.44	3.73	1.44
11. I tend to mix English and Arabic more when speaking with friends than when speaking with family.	2.67	1.48	3.86	1.32	4.13	1.13