



Arabic-English Code-Switching in Moroccan Higher Education: Implications for Multilingual Education

Widad Elfiraoui¹, Marouane Zakhir²

^{1,2}, Chouaib Doukkali University, Morocco

Email: ¹elfiraoui@gmail.com, ²zakhir.marouane@hotmail.com

ARTICLE INFO

Research Paper

Article history:

Received: 15/07/2025

Revised: 18/08/2025

Accepted: 10/09/2025

ABSTRACT

This study investigates Arabic-English code-switching among university students in Morocco, focusing on its implications for multilingual education. The research examines how students in the Department of English Studies at Sultan Moulay Slimane University engage in code-switching, and the factors influencing its frequency and context, particularly gender and age. The study employs a mixed-method approach, combining a survey with individual participant analysis. Data were collected through the questionnaire and recorded spontaneous speech to analyze code-switching frequency, gender influence, code-switching types and the grammatical categories involved in it. The findings indicate that females tend to engage in more frequent code-switching than males. Intra-sentential codeswitching, especially involving nouns and verbs, was the most used form, with code-switching occurring in informal conversations. The results suggest that code-switching can be an effective tool in multilingual contexts, supporting the flexibility of language use in higher education. The implications of these findings highlight the role of code-switching as a natural and beneficial practice in multilingual education, particularly in fostering a more comprehensive and dynamic learning environment.

Keywords: Code-switching, Higher Education, Multilingualism

This work is licensed under a Creative Commons Attribution-Non Commercial 4.0 International License.

INTRODUCTION

Code-switching between Arabic and English has become a common phenomenon in Moroccan higher education, indicating the growing status of English among university students. Code-switching is a natural feature of multilingual societies like Morocco, where students use Arabic, French, Berber, and English in daily communication. Myers-Scotton (1993) studied how Code-switching could be a common characteristic in both bilingual and multilingual speeches, taking into consideration the multiple functions this phenomenon serves. Code switching, as Ja'afa and Maarof (2016) defined, is "considered as a communicative phenomenon of constantly switching between two languages in a bilingual's speech collection" (p. 212). In many multilingual educational settings, students frequently switch between languages to facilitate communication and learning. Arabic-English code-switching, in particular, is a common phenomenon in Moroccan classrooms, where English is taught as a foreign

language. Despite the fact that previous research has focused on secondary education or informal contexts to investigate the phenomenon of Arabic- English code-switching, there remains a lack of studies that address code-switching frequency, gender influence, types of code switching and the grammatical categories involved in it. Thus, previous research has often overlooked some aspects and focused on others while investigating the target issue. The main limitation of earlier research lies in the fact that the focus on different functions of code-switching in multilingual education was limited. As a result, this study aims to investigate the implications of code-switching for multilingual education, focusing on its frequency, gender influence, the types of code switching, and the grammatical categories involved. The objectives of this research are to (1) identify the frequency of code-switching instances among Moroccan university students, (2) investigate the gender influence on code-switching, (3) explore the linguistic contexts of intra-sentential and inter-sentential code switching, and (4) find out the grammatical categories used the most when students code-switch.

The research is meant to answer the following questions:

- 1) What is the frequency of Arabic-English code-switching among Moroccan university students?
- 2) How does gender influence code-switching?
- 3) What are the contexts of intra-sentential and inter-sentential code-switching?
- 4) What types of code-switching are most frequently used among students?

This research was significant in that it investigated the phenomenon of code-switching among students of the department of English studies in informal communicative events. This in turn helped further identify the conditions in which code-switching takes place. Secondly, most of the studies on the phenomenon of code-switching were carried out in the context where the participants are not majoring in English studies. However, this study was conducted at Sultan Moulay Slimane University, and particularly among students of the department of English studies. Therefore, it was easy to record different code-switching occurrences due to vast exposure to English language.

Two hypotheses are intended to be tested in this study. 1) Participants would frequently engage in Arabic- English code-switching. 2) It was hypothesized that females code switch more than males. 3) Based on several theories which differentiated the types of code-switching according to their occurrence in a sentence, it was hypothesized that the two types of code-switching would occur in the speech of the participants, i.e., inter-sentential and intra-sentential. 4) Depending on the results of this research on Arabic-English code-switching in the university students' speech, it would be discovered that nouns are the most frequently used categories.

LITERATURE REVIEW

Numerous studies have explored code-switching as a strategy in bilingual and multilingual contexts. Code-switching is widely studied as an outcome of bilingual or multilingual communication. Many definitions for this phenomenon involve changing languages or even dialects in oral or written communication. It is not only about alternating the language a person frequently uses, but it also involves a number of phenomena which are crucial to bilingualism and multilingualism (Milroy & Muysken, 1995). Gumperz (1982) defines code-switching as *"the juxtaposition within the same speech exchange of passages of speech belonging to two different grammatical systems or subsystems"* (p. 59).

Poplack (1981) identified three main types of code-switching such as tag-switching, intra-sentential switching, and inter-sentential switching. Tag switching typically involves the insertion of either a tag phrase, or a word, or both into a sentence. While Intra-sentential code-switching involves a switch within the same sentences, Inter-sentential code-switching occurs between sentences. In Moroccan

higher education, students code-switch between Arabic and English, often unconsciously, which could probably be as a strategy to express themselves freely.

Myers-Scotton (1993) Matrix Language Frame model suggests that when bilingual speakers switch between languages, one language usually governs sentence structure, while the other provides words or phrases. This Matrix model can help explain how Moroccan students include English words within Arabic sentences in academic settings.

Al-Hourani and Afizah argues that “*the Arabic-English code-switching phenomenon is widely observed among Arab speakers*” (p.40). Sociolinguists need to know more about this phenomenon of code switching and its occurrence since it is widespread among both bilingual and multilingual speakers.

Research in multilingual classrooms has revealed that code-switching serves a variety of pedagogical functions. It is argued that “... (1) *code switching for constructing and transmitting knowledge/curriculum access, for scaffolding knowledge, annotation of key L2 technical terms and mediation of L2 textbooks; (2) code-switching for classroom management, for signaling a shift/footing, managing pupils’ behavior such as: motivating, disciplining, and praising them; and (3) code switching for interpersonal relations for humanizing classrooms*” (Ferguson, 2003, 2009, as cited in Cahyani, Courcy & Barnett, 2016, p.467). In the Moroccan context, previous studies have mostly focused on Arabic-French switching, with limited attention given to Arabic-English code switching, particularly at the university level.

The linguistic environment in Morocco is shaped by trilingualism (Arabic, Amazigh, and French) and a growing emphasis on the English language. Despite this multilingual reality, language policy remains inconsistent, especially in higher education, where English is increasingly used in science and technology.

While code-switching in Moroccan classrooms has received some attention, Arabic-English switching among university students remains underexplored. This study seeks to address that gap by examining Arabic English code switching in academic settings, with a view toward its role in multilingual education. This review shows the necessity for further research into the academic influence of code-switching in higher education.

METHOD

This study used a mixed methods design that combines audio recording of students’ interactions with the questionnaire.

Research Design

This study adopts a mixed-methods approach to examine Arabic-English code-switching among university students in multilingual classrooms. This study used both qualitative and quantitative analysis techniques based on the proposed research questions. The data collection process was based on the recordings of the participants’ spontaneous speech and the questionnaire. This mixed-methods design was chosen to allow for both statistical generalization and in-depth exploration of students’ code-switching.

Participants

Fifteen subjects who participated in this study. Some of them are Arabs and others are Amazigh, but all are born in Morocco. In terms of English language proficiency, all participants have studied English for a minimum period of eight years, and all the subjects fall into the age grouping of 20-30 years. The study of code-switching with a relatively small number of subjects has been carried out by some researchers. For example, Blom and Gumpers (1972) recorded the presence of two groups comprising six individuals in their study of dialects in a Norwegian speech community. Similarly, Nishimura’s

(1995) Paper was based on data from three participants. The advantage of having a limited sample size is that a greater depth of analysis can be achieved by the researcher. The aim of having fifteen participants who belong to different age and gender was to uncover different views about the level of agreement or disagreement towards the given statements and to discover if these variables influence the type of code-switching (inter-sentential or intra-sentential) employed by the participants.

Instruments

Two main instruments were used to collect data for this study, namely audio recordings and the questionnaire. Each tool is described in detail in the following sections.

Audio Recordings

Audio recordings captured the verbal interactions that occurred during the observations. Audio recording is a technique used to obtain the naturalistic speech of the participants in qualitative research (Burn, 1999; Silverman, 2005). *“People have been using audio recording to capture voices for later review.”* (Thissen, Sattaluri, McFarlane, & Biemer, 2008, p. 1). The audio recordings proved to be a very useful tool and they helped the researcher replay verbal interactions for the purpose of transcription and analysis. The interaction of the participants was recorded with a smartphone for a total period of five hours. Each session lasted approximately 30 minutes. The researcher did not intervene to initiate topics while avoiding content guidance. All participants were informed about the nature of the study and gave their consent to be recorded for research purposes. The audio recordings of students' discussions were made with their consent, capturing natural interactions between students and their classmates. All recordings were transcribed for analysis. Code switching instances were coded by type (inter-sentential, intra-sentential and tag-switching). Arabic was transcribed in Arabic script and English in Latin script. For each code-switching instance, the full mixed- language sentence is presented. After that, the English translation of the whole sentence is provided in square brackets immediately afterward.

Questionnaire

Another method used in data collection is the questionnaire. All the participants were at the beginning of the research required to fill out a questionnaire in order to ensure that they conform to the criteria that the research required. It therefore consists of a self-report on the participants. The questions included: age, gender, status, ethnic group and semester. After that, the next sections measured the frequency of code switching, the gender influence, the types of code-switching (inter-sentential, intra-sentential, tag-switching), and the grammatical categories involved in different types of code-switching. Items were written in clear English, and the completion time was 10 minutes. Participants were requested to give honest views in the four Likert scale. The scale was comprised as follows: Strongly agree, Agree, disagree, and strongly disagree. The questionnaire has been carried out in order to obtain each participant's level of agreement or disagreement towards some statements.

Data Analysis

The analysis of the data includes both qualitative and quantitative methods. The analysis was carried out in details below. Firstly, the questionnaire data were analyzed using Microsoft Excel to calculate percentages, which were presented in figures. Secondly, the audio recordings were transcribed and coded.

The data were analyzed in order to answer questions regarding the frequency of Arabic- English code-switching among university students. After measuring the frequency of code switching, gender

influence was investigated. Furthermore, the types of code switching and the categories involved in it were all measured.

RESULT AND DISCUSSION

This section presents the findings of the study and discusses them in relation to the research objectives. The results are organized according to four major themes: the frequency of code-switching, the influence of gender on code-switching practices, comparison between intra-sentential and inter-sentential code-switching and the grammatical categories that are most frequently used among university students when they code-switch.

Frequency of Code-Switching

Research has displayed that the frequency of code-switching varies based on “a change of topic, of situation, of interlocutors, etc. may lead to a change in base language.” (Grosjean, 2010, p. 44). The frequency with which participants engaged in code-switching is presented in Figure 1 below.

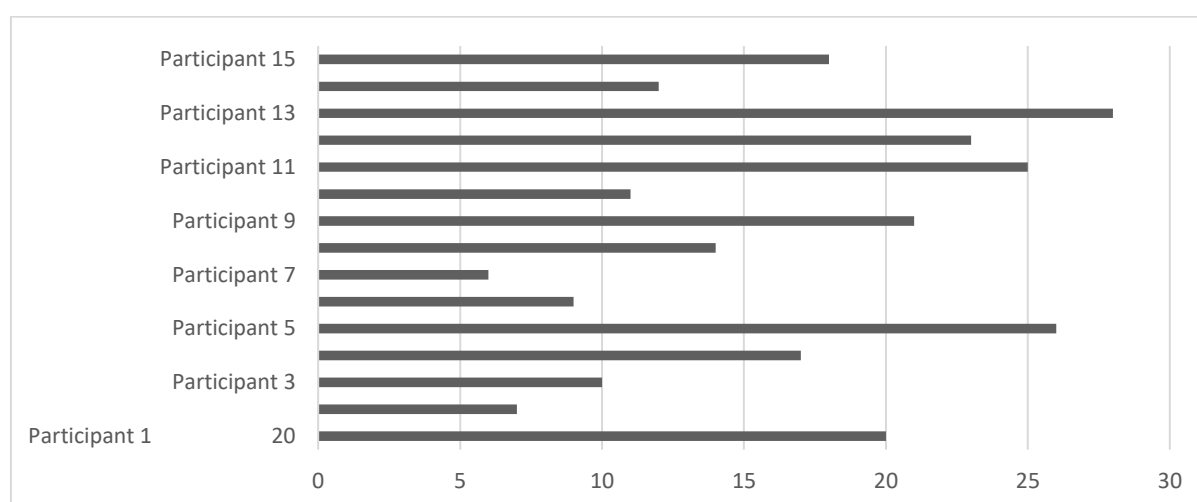


Figure1: Frequency of Code-Switching

Based on the data provided, it is clearly shown that there is a variation in code-switching among respondents. This variation in code-switching frequency suggests that individual language practices can differ among participants, even in the same study group. It ranges from 6 to 28 occurrences per participant. These findings indicate that the frequency of code-switching does not necessarily correlate with factors like age or education level but could be influenced by factors like language proficiency, or the context in which the conversation takes place, suggesting that bilingual language use is a normal feature of academic and social conversations among Moroccan university students.

Many code-switches occurred when students talked about their research papers. One student said, "ايوا راه خاصك ديرى" (so you have to do valuable research). Another student noted, "قلت methodology او questionnaire ليانا نوجدو" ("she told us to prepare the methodology and the questionnaire"). Also, one of the participants stated, "methodology first عاد the research questions" ("you have to do the methodology first then the research questions"). This demonstrates how students naturally integrated English academic vocabulary within Arabic grammatical frames.

The frequency levels correspond with Sahib, Mursyid, Kafryawan, & Nawing (2021) findings that “Students used code-switching because it was needed in the classroom interaction like English Group Discussion” (p. 26).

The results support the first hypothesis, which predicted that students would engage frequently in Arabic-English code-switching.

Overall, the data suggest that code-switching occurs with noticeable frequency. To better understand how these frequencies differ across gender, the next section examines the influence of gender on code-switching occurrences.

Gender Influence on Code-Switching

Previous studies have shown that gender differences can influence language use. For instance, Robin Lakoff (1975) explained that *“women tend to use linguistic forms that reflect and reinforce a subordinate role in society’s power structure. These linguistic features include hedges, indirect requests, tag questions, fillers, and empty adjectives- and they also use super-polite forms”* (p.5). The influence of gender on code-switching practices is clearly illustrated in Figure 2.

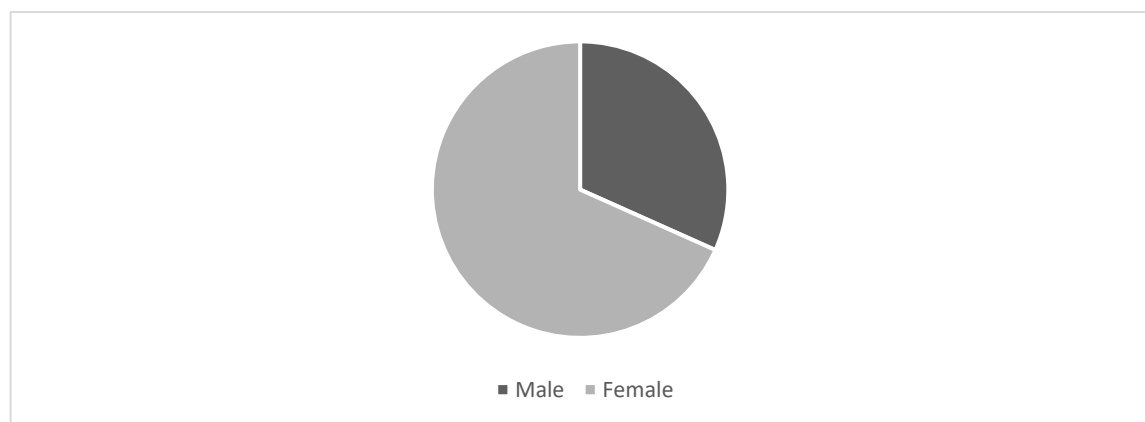


Figure 2: Gender- Based Frequency of Code-Switching

The gender-based analysis shows that females tend to code-switch more frequently than males. Female students accounted for approximately 70% of the reported code-switching instances, while male students produced around 30%. This suggests that female students engaged in code-switching more frequently compared to their male counterparts. In some sociolinguistic studies, females are often found to use language more flexibly and creatively, potentially switching codes more freely based on the communicative context. Therefore, the data provided supports this claim, suggesting that gender may play a role in determining how often and when code-switching occurs. Female students used code-switching more often in group discussions. As a case in point, one female participant noted, " قالينا غادي نعطيكم غير theoretical questions" (“he said that he will give us only theoretical questions”). This blending of Arabic and English may display greater comfort with using English words and phrases among female participants.

The findings confirm the second hypothesis that females code-switch more frequently than males during their interactions.

The data highlight that gender plays a significant role in shaping code-switching patterns. The following section examines the contexts in which code-switching occurs.

Types of Code-Switching

“The occurrence of code-switching depends, among other things, on the norms or perceived norms of the speech situation, the bilingual ability or perceived proficiency of the speaker, and on social relationships among participants.” (Poplack, 1980, p. 585). Figure 3 outlines the frequency of inter-sentential and intra-sentential code-switching occurrences.

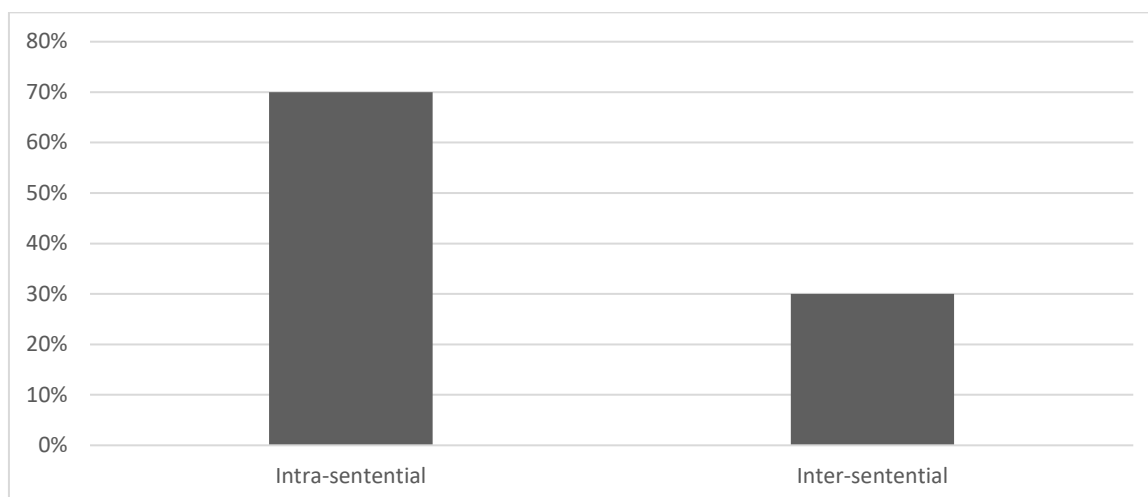


Figure 3: Intra-Sentential and Inter-Sentential Code-Switching Distribution

The Intra-sentential code-switching (switches within a sentence) is more prevalent than Inter-sentential code-switching (switches between sentences). This could be attributed to the natural flow of switching between languages within sentences, as speakers may switch words or phrases without interrupting the sentence structure. The data suggest that speakers may prefer the integration of foreign words or phrases within their sentence structures.

An example of intra-sentential switching is explained by one participant, "أنا كنت فاداً" code-switching when I talk to "شي واحد لي كيهضر only Arabic" ("I avoid code-switching when I talk to someone who talks only Arabic"). In contrast, an inter-sentential switch appeared in sentences such as, "راه قديتها" I changed the stuff" ("I prepared it. I changed the stuff"). These examples, in fact, showed how the context influenced sentences or phrases where code-switching took place.

The dominance of intra-sentential switching supports Poplack (1980) view that "...more fluent bilinguals engage in more intra-sentential switching- switching within clauses" (p.586)

The findings do not align with the hypothesis that both inter-sentential and intra-sentential code switching are the most frequent types used by participants.

Grammatical Categories Involved in Code-Switching

"All types of grammatical categories can be code-switched" (Gardner-Chloros, 2009, as cited in Vogl, 2021, p.26). Figure 4 highlights the grammatical categories which students use the most when they are engaged in Arabic- English code-switching.

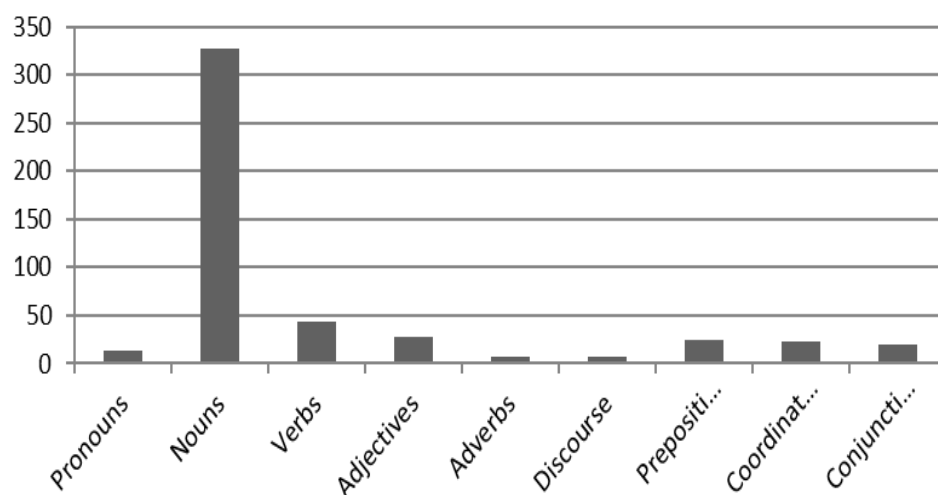


Figure 4: Grammatical Categories Involved in Code-Switching

The research categorizes Intra-sentential switches by parts of speech (nouns, verbs, adverbs, etc.). Nouns emerged as the most frequent type of switch, indicating that students often switch between languages when using certain names or subject related words. This is consistent with other studies that find nouns to be the most commonly switched items because they are often the most meaningful and specific content words in a sentence. Verbs were the second most frequently switched category, suggesting that students switched between languages when expressing actions or processes. In contrast, Inter-sentential code-switching is broken down into discourse markers (e.g., “yeah”) and full sentences. It is observed that sentences accounted for the majority of inter-sentential switches, making up 70% of the total. This suggests that speakers are more likely to switch languages at the sentence level.

Analysis of the audio recording displayed that nouns were the most frequently switched category, followed by verbs. Students often switched to English when using nouns. For example, one student noted, "انا غندير literature" (“I will do literature”). Another participant explained, "قلت ليك غندير language and gender" (“I told you I will do language and gender”).

Verbs also appeared in Arabic English utterances. For instance, “the professor said هاداك خاصني ن study هاداك ن memorize it” (“the professor said I have to study this lesson and then memorize it”). This clearly shows that students code switch to express important content. While the graph shows the grammatical categories involved in code-switching, spontaneous speech recordings further suggest that code-switching often occurs when multilingual students encounter complex or technical terms that are better expressed in one language.

The findings are consistent with the hypothesis that nouns are the category most frequently involved in the process of code-switching.

CONCLUSION

The analysis of both questionnaire responses and audio recordings displayed that Arabic- English code-switching is widespread among Moroccan university students, particularly when discussing concepts related to their studies. The results indicates that the younger age group is more open to use code-switching in different conditions. Their discussion, in general, was focused on their study at the university. In contrast to this, the older age group displayed the smallest frequency of code-switching. This indicates that the younger age group is more open to use code-switching in different conditions.

Furthermore, the higher frequency of code-switching among females and the dominance of nouns and verbs in switches highlight the complexity of multilingual communication among students. While only few participants engaged in inter-sentential code-switching, the speakers' intra-sentential code-switching was the most frequently produced, indicating that there is little or no disconnection between the two languages.

These findings align with previous research suggesting that bilingual students rely on code-switching as a tool for comfort and managing their interactions. The predominance of verbs and nouns in code-switched speech reflects the need for clarity when conveying complex academic concepts.

The results have important implications for language teaching in multilingual classrooms. Teachers might prepare teaching activities that could help students develop their multilingual competencies. As far as teachers' training programs are concerned, they should put an emphasis on the importance of multilingualism and thus, train teachers on how to effectively encourage code-switching in the classrooms.

One limitation of this study is the small sample size, which may affect the generalizability of the findings. Additionally, time constraint is also a limitation because the data collection was limited to a specific period.

In brief, in multilingual classrooms, students are proficient in more than one language. Code-switching is then seen not only as a way of communication inside the classroom, but also as an effective strategy that could help students interact in various environments.

Overall, the study contributes to a deeper understanding of the various dimensions of code-switching in Moroccan higher education, while also future research may explore teachers' perceptions of Arabic-English code-switching among students or investigate both its positive and negative influence on students' academic performance at the university level. Furthermore, universities could also encourage the use of code-switching as a pedagogical tool in classrooms.

ACKNOWLEDGMENT

The author would like to thank Dr. Marouane Zakhir for his invaluable supervision and guidance. Gratitude is also extended to the students who participated in this study and to the staff of Sultan Moulay Slimane University for their support.

REFERENCES

- Al-Hourani, A., & Afizah, T. (2013). Code switching in daily conversation. *International Journal of Social Science and Humanities Research*, 1(1), 40–43.
- Blom, J.-P., & Gumperz, J. J. (1972). Social meaning in linguistic structures: Code-switching in Norway. In J. J. Gumperz & D. Hymes (Eds.), *Directions in sociolinguistics: The ethnography of communication* (pp. 407–434). Holt, Rinehart and Winston.
- Burns, A. (1999). *Collaborative action research for English language teachers*. Cambridge University Press.
- Cahyani, H., de Courcy, M., & Barnett, J. (2016). Teachers' code-switching in bilingual classrooms: Exploring pedagogical and sociocultural functions. *International Journal of Bilingual Education and Bilingualism*, 19(4), 465–480. <https://doi.org/10.1080/13670050.2015.1027148>

- Grosjean, F. (2010). Factors that influence language mode. In *On bilinguals and bilingualism* (pp. 40–58). Cambridge University Press.
- Gumperz, J. J. (1982). *Discourse strategies*. Cambridge University Press.
- Ja'afar, N. S., & Maarof, N. B. (2016). Teachers' beliefs of code-switching in the ESL classroom. *Open Journal of Social Sciences*, 4(4), 212–222. <https://doi.org/10.4236/jss.2016.44030>
- Lakoff, R. (1975). *Language and woman's place*. Harper & Row.
- Milroy, L., & Muysken, P. (Eds.). (1995). *One speaker, two languages: Cross-disciplinary perspectives on code-switching*. Cambridge University Press.
- Myers-Scotton, C. (1993). *Social motivations for code-switching: Evidence from Africa*. Oxford University Press.
- Ng, S., Gonzalez, C., & Wicha, N. Y. Y. (2014). The fox and the cabra: An ERP analysis of reading code-switched nouns and verbs in bilingual short stories. *Brain Research*, 1557, 127–140. <https://doi.org/10.1016/j.brainres.2014.02.009>
- Nishimura, M. (1995). A functional analysis of Japanese/English code-switching. *Journal of Pragmatics*, 23(2), 157–181. [https://doi.org/10.1016/0378-2166\(94\)00033-N](https://doi.org/10.1016/0378-2166(94)00033-N)
- Poplack, S. (1980). Sometimes I'll start a sentence in Spanish y termino en español: Toward a typology of code-switching. *Linguistics*, 18(7–8), 581–618. <https://doi.org/10.1515/ling.1980.18.7-8.581>
- Poplack, S. (1981). Syntactic structure and social function of code-switching. In R. P. Duran (Ed.), *Latino language and communicative behavior* (pp. 169–184). Ablex.
- Sahib, R., Mursyid, A. M., Kafryawan, W., & Nawing, N. (2021). Code-switching habits in group discussions by students of English as a foreign language. *JELITA: Journal of English Language Teaching and Literature*, 2(1), 25–37.
- Silverman, D. (2005). *Doing qualitative research* (2nd ed.). Sage.
- Thissen, M. R., Sattaluri, S., McFarlane, E., & Biemer, P. P. (2008). The evolution of audio recording in field surveys. *Survey Practice*, 1(5). <https://doi.org/10.29115/SP-2008-0018>
- Vogl, I. (2021). Code-switching in noun–adjective combinations: A corpus analysis of English–Spanish and Welsh–Spanish bilinguals [Master's thesis, Karl-Franzens-Universität Graz]. UniPub. <https://unipub.uni-graz.at/obvugrhs/content/titleinfo/6525704>