CODE-SWITCHING AS A BRIDGE OR A BARRIER: A SOCIOLINGUISTIC ANALYSIS OF TEACHERS' CODE-SWITCHING IN PAKISTANI CLASSROOMS

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ABSTRACT

The present study explored the influence of teachers' code-switching on students' perceptions and classroom engagement within the context of English as a Medium of Instruction (EMI) in Pakistan. A quantitative research design was employed with a sample of 203 undergraduate students, who completed standardized scales measuring their perceptions of teachers' code-switching and their level of academic engagement. Reliability analysis confirmed acceptable to strong internal consistency across the instruments (α = .69–.86). Correlational findings indicated a moderate positive relationship between teachers' code-switching and students' favorable perceptions (r = .24, p < .01). Regression analysis further revealed that code-switching significantly predicted student engagement (β = .49, p < .001), explaining 23% of the variance. Group comparisons showed that students with lower English proficiency reported more benefits from teachers' code-switching than those with higher proficiency, whereas gender differences were non-significant. A one-sample t-test indicated that teachers' use of the first language did not significantly increase confusion among students. These findings suggest that purposeful and limited code-switching can be a valuable pedagogical strategy in EMI classrooms, particularly for learners with lower English proficiency. Implications for language policy and teacher training are also discussed.

Keywords: Code switching, English Medium Instruction, Multilinugalism, Sociolinguistics, language proficiency

1. INTRODUCTION

Code-switching, a purposeful act of shifting from one linguistic code to another in a single lesson, single interaction, or single turn, has long been acknowledged within bilingual and multilingual classrooms. In Pakistan, code-switching is commonplace with pedagogical implications since Urdu, English, and regional languages are all taught together. Currently, the debate revolves around whether teachers include deliberate language switches that inhibit and damage the aim of English-medium instruction or constitute a means to facilitate comprehension and participation. With its possible consequential effect on concept clarity, classroom participation, affective comfort, engagement, and some confusion among students, this study investigates code-switching as a classroom practice within the sociolinguistic realities of Pakistani schools and universities.

International research has positioned code-switching as a pedagogical resource rather than a deficit activity. Teachers have been observed employing code-switching for various purposes, including regulating classroom routines, supporting affective needs, and facilitating comprehension, as evidenced in early classroom studies (Sert, 2005). Subsequent reviews spanning three decades have underscored the necessity for pedagogy to surpass monolingual norms (Lin, 2013). Furthermore, research on translanguaging has highlighted a significant

advantage and proved the integrated linguistic repertoire of bilinguals as a communication and cognitive asset (García & Li Wei, 2014). All these positions then would argue that the well-tuned alternation of languages may indeed enhance learning, support reduced processing, and keep learners engaged, with learners' proficiency increasing in the target language.

The secondary and higher education teachers also prefer using Urdu to make complex vocabulary, grammar, and instructions for tasks to make them easy for students to understand (Gulzar, 2010; Iqbal, 2020; Nawaz, Yali, & Hameed, 2023). The more recent writings deal with learner's proficiency levels and report that the degree and functions of code-switching vary according to proficiency levels, with more code-switching occurring in lower-proficiency conditions to assist with understanding and speed (Khan, 2022; Siddiqui, 2024). The action-research carried out on universities in Pakistan shows that strategic L1 assistance indeed enhances reading comprehension and participation (Rehman & Abbas, 2024).

EMI policy goals, however, can become undermined due to over-reliance on L1, as research cautions. Some Pakistani undergraduates claim that frequent switches to Urdu can lead to distractions that impede their progress toward acquiring fluency in English (Nawaz et al., 2023). As such, a lack of English may potentially reduce exposure and useful practice, leading to an increased acceptance for functionally motivated and deliberate code-switching, as opposed to L1 use without restriction. Such code-switching becomes justifiable, perhaps even obligatory, when it assists in facilitating comprehension, uptake of a task, or provides much-needed affective support, whereas L1 use is progressively withdrawn as learners are capable of engaging in their tasks in English without undue cognitive burden (Lin, 2013; García & Li Wei, 2014).

This study rests on five interconnected outcome domains - originating from educational psychology and sociolinguistics - namely: (i) the understanding of complex ideas; (ii) behavioral, emotional and cognitive engagement; (iii) the benefits differentiated according to ability proficiency; (iv) comfort, motivation and participation; and (v) confusion. Earlier research states that code-switching often facilitates more procedural understanding and conceptual clarity because certain effects come from L1 equivalents, contrastive explanations, and metalinguistic cues that usually work best when learning new or abstract material (Sert, 2005; Gulzar, 2010; Ahmad & Jusoff, 2009). Also, if using the first language makes the classroom feel more welcoming, builds better relationships, and reduces anxiety, we see positive results in how students feel and how much they participate (Hayati & Mojarrad, 2013; Rahmani et al., 2022). But, like cognitive load says, these gains are usually biggest for students who are not as good at the language (Ahmad & Jusoff, 2009; Moradi & Chen, 2022). Then again, if teachers switch languages randomly, don't signal it well, or don't connect it to what they are teaching, it will likely confuse students. Good planning can fix this (Lin, 2013).

This clash between English-only policies and the reality of multilingual classrooms is most evident in the EMI and EFL contexts of Pakistan. Whereas Policy texts advocate English as the vehicle of social mobility; however, classroom experiences show that English-only instruction often causes cognitive overload and persistent competence gaps (Jan et al., 2024).To that end, teachers resort to code-switching-meaning-making, which sustains the significance of English. Thus, pedagogical concern is not whether code-switching occurs but how to maximize learning without compromise in the long term for competence goals by optimizing its frequency and functions.

This contradiction becomes very apparent with respect to Pakistan's EMI and EFL contexts. In that sense, teachers resort to code-switching, meaning-making, and sustain the significance of English. Therefore, the pedagogical concern is not whether code-switching

happens but rather how to maximize learning without compromising long-term competency goals by optimizing its frequency and functions.

The research employs certain established tools from the literature to evaluate the results of students and their teachers' code-switching ability. A classroom functions scale modified from Gulzar's (2010) constructs is used to operationalize teachers' code-switching and to measure affective, managerial, and instructional maneuvers. The Perceptual Scale, adapted from Ahmad and Jusoff (2009), measures the extent of understanding of difficult concepts by students. A student's engagement scale, usually used for classrooms of second language learners, is used for evaluating participation on behavioral, emotional, and cognitive dimensions. To these, additional measures include perceived comfort, motivation, participation, and bewilderment perceived by students in response to teachers' code-switching. The analytical focus is on the five Slotted Hypotheses dealing with the relationships explained therein.

First, the proposition deals with the comprehension hypothesis, which states that the more the students understand the complex ideas, the more the teachers switch codes. Short and precise L1 moves such as definitions, reformulations, and contrastive explanations may help to foster uptake and reduce misconceptions. This is supported by past studies conducted in Pakistan and a few other EMI contexts (Ahmad & Jusoff, 2009; Gulzar, 2010; Rehman & Abbas, 2024). On the cognitive side, L1 scaffolding helps them to integrate content in working memory since it lowers intrinsic and extrinsic load (Moradi & Chen, 2022).

The other possibility is that the premise of engagement would indicate that the individual's general class engagement would be positively associated with teacher code-switching. The first two choices can, by cognitive means, enhance strategy parlance and facilitate metalinguistic actions; by behavioral means, speed up the onset of assignment; and on the emotional side, engage in reducing anxiety and increasing one's sense of belonging (Hayati & Mojarrad, 2013; Rahmani et al., 2022). Research conducted in Pakistan suggests that short segmentations of L1 comprehension by teachers while structuring activities and setting clear expectations lead students to be more involved and remain on task (Khan, 2022; Siddiqui, 2024).

Furthermore, the hypothesis of proficiency moderation states that students of lower proficiency indicates more benefits of code-switching in comparison to higher levels of proficiency, i.e., medium or advanced proficiency learners. Such an assumption is supported by evidence from areas within and outside Pakistan that indicate the lower-with-proficiency learners benefit from increased gains in understanding and confidence with L1 scaffolding (Ahmad & Jusoff, 2009; Khan, 2022).On the other hand, the high-level switch may be irritating and feasible among the high-ability groups (Nawaz et al., 2023).

Fourth, the comfort, motivation, and participation of students is in sync with the frequency of code-switching, as posited by the affective-comfort hypothesis. Strategic L1 shifts help establish rapport, gauge teacher empathy, and sustain a participation-friendly atmosphere, which in turn enhances participation in the class, as shown in several EFL/ESL studies (Hayati & Mojarrad, 2013; Rahmani et al., 2022). Similar studies in Pakistan found that brief embedding of Urdu in otherwise predominantly English instructions significantly increase engagement among learners (Rehman & Abbas, 2024).

Lastly, the hypothesis of confusion (null) assumed that students' confusion would not necessarily increase based on a teacher's code-switching. To date, studies identifying the types of switching (useful and not useful) report students' confusion based on unintentional, excess, poorly performed, or poorly timed movements and not based on switches (Lin, 2013). When the instructor's mode of switching is used to summarize, contrast, or declare key

concepts, students report a more fluid movement towards the achievement of a task, and they report less confusion (Khan, 2022).

Theoretically, the study draws upon a translanguaging framework and the interactional analysis of classroom discourse to construct its theories. From an interactional perspective, code-switching is considered a local, contextual strategy for executing particular instructional goals like indexing stance, turn-taking, and troubleshooting (Sert, 2005; Lin, 2013). Strategic alternation is described as the arrangement of a learner's entire semiotic repertoire to construct a disciplinary meaning from a translanguaging perspective (García & Li Wei, 2014). All these models agree on the contextualized nature of the usefulness of L1: it is advantageous in contexts that encourage participant engagement and meaningful tasks, but becomes disadvantageous in situations where it replaces the realistic target-language work.

The educational challenges in Pakistan are influenced by structural forces. Although students come from diverse linguistic backgrounds, many institutions require English as a Medium of Instruction (EMI). Teachers work to make content accessible while also covering the curriculum (Jan et al., 2024; Ramzan et al., 2025). They use various code-switching strategies, such as shifting topics to clarify explanations, repeating in the student's first language for reinforcement, using contrasting terms to help understand new vocabulary, appealing to emotions to motivate reluctant learners, and managing procedures to streamline classroom routines (Sert, 2005; Gulzar, 2010). When these methods are used well, they can help students engage with English and improve their language skills (Ramzan et al., 2023).

The Pakistani results also illustrate the need for deeper studies and hypothesis-driven research. Some reports caution that too much dependence on the first language may delay skill development or be viewed as problematic in higher-level groups. But other research has found benefits to feelings and comprehension (Nawaz et al., 2021, 2023). To account for this variability, this study w investigates the effects of proficiency as a moderator on these results based on directional hypotheses using reliable scales. This method not only illuminates the when, what, and for whom but also gathers an imperative data source to address the streaming services preference paradox.

In general, this study augments sociolinguistic research as well as classroom practice by integrating traditional code-switching literature with translanguaging-informed education and by providing data specific to Pakistan. Its findings are expected to inform EMI policy and teacher education with regard to identifying codeswitching functions and frequencies that maximally enhance understanding and interest but do not create confusion and/or inhibit long-term gains in English learning. The final aim in Pakistani educational institutions is principled bilingual education, which views alternation as scaffolding for reaching the target language, and not as a substitute.

1.1 Objectives of the Study

1. To investigate the relationship between teachers' code-switching and students' understanding of difficult concepts in Urdu–English–Pashto multilingual classrooms.
2. To examine the association between teachers' code-switching and students' overall classroom engagement (behavioral, emotional, and cognitive).
3. To compare the perceived benefits of teachers' code-switching among students with different levels of English proficiency.

1.2 Research Hypotheses:

H1: There is a significant positive relationship between teachers' code-switching and students' understanding of difficult concepts in Urdu–English–Pashto multilingual classrooms.

H2: There is a significant positive relationship between teachers' code-switching and students' overall classroom engagement (behavioral, emotional, and cognitive).

H3: There is a significant difference in perceived benefits of teachers' code-switching among students with different English proficiency levels, with lower-proficiency students reporting higher benefits.

2. LITERATURE REVIEW

Code-switching of teachers and its effects on students' understanding, involvement, and overall learning experiences has become a growing area of study in bilingual and multilingual education contexts. In Pakistan, where English is yet the medium of teaching and learning but is predominantly not the first language of most students, code-switching has generated endless debate, defined as a deliberate change from one language to another during instruction. Earlier research shows that intentional code-switching is an effective means to simplify complex concepts, keep students engaged in the material, and assist those students viewing English as their second language (Gulzar, 2010; Lin, 2013).

In a seminal study, Ahmad and Jusoff (2009) conducted a study in Malaysian classes and found that code-switching indeed enhanced the comprehension of students over difficult material, especially when addressing either abstract context or technical subject matter. The finding supported the sociocultural theory of learning that learning happens in a language familiar to the learners, which decreases cognitive overload as well as encourages conceptual clarity. Correspondingly, Lin (2013) also mentioned that language switching by teachers would increase participation among students in a bilingual classroom setting. In harmony with these findings, the present investigation has shown a fairly positive association (r =.240, p <.01) between teachers' code-switching and students' perceptions about the value of it, such that classroom comprehension in Urdu-English-Pashto is achieved through strategic language alternation (Ahmad & Jusoff, 2009; Lin, 2013).

Further, code-switching is one of the constructs related to student engagement, especially when teachers relate academic material to the students' languages and cultures. Gulzar(2010) argued that greater behavioral, emotional, and cognitive engagement of students did appear when relatively familiar patterns of language were employed. Regression analysis in this study indicated that 23.5 percent of the variance explained was due to code-switching, a strong predictor of student engagement (β = .485, p < .001). This is further strengthened by findings that say language alternation may lead to an inclusive and interactive environment for learning by counteracting fear and promoting confidence (Gulzar, 2010; García & Wei, 2014).

Another research path in code-switching discourse has been the issue of linguistic necessity. For instance, research has shown that low second language proficiency students are more inclined to rely on the code-switching strategies of the teacher for comprehension and participation (García & Wei, 2014). The present study showed that, compared to students with medium (M = 35.20) and high (M = 34.80) English proficiency, students with low English proficiency were those who reported the most use of code-switching for their help (M = 37.10, SD = 2.57). The difference among groups was significant ($F(2,200)$ = 4.12, p=.018). This outcome supports bilingual education studies undertaken in analogous contexts, where the mother tongue acts as a blockage to grasping challenging academic material (García & Wei, 2014; Ahmad & Jusoff, (2009).

As per some researchers, code-switching may confuse or disrupt classroom discourse (Macaro, 2009); however, some researchers say that there are minimal to absent negative impacts (Ahmad & Jusoff, 2009; Lin, 2013). The results of a one-sample t-test (p = .472) showed that students' confusion scores did not significantly differ from the neutral midpoint, indicating that intentional code-switching does not disrupt lesson coherence.

Previous studies have thus far been less about the understanding of code-switching among the genders. Some works point out slight differences in the preferences for the use of

languages, while others, including khan and malik (2019), have reported no significant gender differences. The present study found no significant gender differences in perceptions of teachers' code-switching (p = .519), consistent with Khan and Malik (2019). This indicates that both males and females perceive the possible benefits of teacher-coding-switching equally (Khan & Malik, 2019). Overall, previous studies suggest that deliberate code-switching enhances comprehension and engagement without significantly increasing confusion, particularly for low-proficiency learners. Such fledgling lines of inquiry show greater importance for code-switching in creating inclusive and productive learning environments in Pakistan and beyond.(Gulzar, 2010; Ahmad & Jusoff, 2009; García & Wei, 2014; Lin, 2013).

2.1 Theoretical Framework

The theoretical framework thus delineates the research in terms of teachers' code-switching, students' perceptions, and student engagement in multilingual classrooms. The study relies tremendously on two important linguistic and educational approaches, i.e., sociocultural theory of language learning and code-switching in terms of communicative function.

2.2 Sociocultural Theory of Language Learning

According to Vygotsky (1978) learning is an activity that happens under social mediation. Teachers might strategically perform code-switching between Urdu, English, and Pashto in the multilingual classroom for scaffolding the students' knowledge, reducing cognitive overload, and bridging gaps in comprehension. It also holds that language goes beyond being very much a channel of communication to becoming a medium for co-construction as well. Through code-switching with reference to students' previous language and cultural experience, new materials are made easier for students to obtain meaning.

2.3 Communicative Functions Theory of Code-Switching

According to Gumperz and Poplack (1980; 1982), code-switching serves multiple communicative functions-such as putting emphasis on a point, sustaining discipline in the classroom, and fostering solidarity between teachers and learners. These communicative functions motivate students to participate by relaxing the tensions created by their inabilities in the target language and connecting the learning process to students' lives. It also directs attention towards some possible negative aspects, like undue dependence on the first language, which limits exposure to the target language.

2.4 Integration of Both Theories

These theories together elaborate on how teachers manipulate code-switching as a communicative tool (Communication Functions Theory) and teaching strategy (Sociocultural Theory) to shape the classroom experiences of students. Code-switching can pull students into greater engagement when successfully employed to create understanding and motivation and to invite participation. Conversely, heavy or unmotivated code-switching hinders the immersion process or creates confusion.

2.5 Conceptual Framework:

The conceptual model is based on Vygotsky's Sociocultural Theory (1978), Gumperz's Communicative Functions of Code-Switching (1982), and Fredricks, Blumenfeld, & Paris's (2004) model of student engagement.

Figure 1
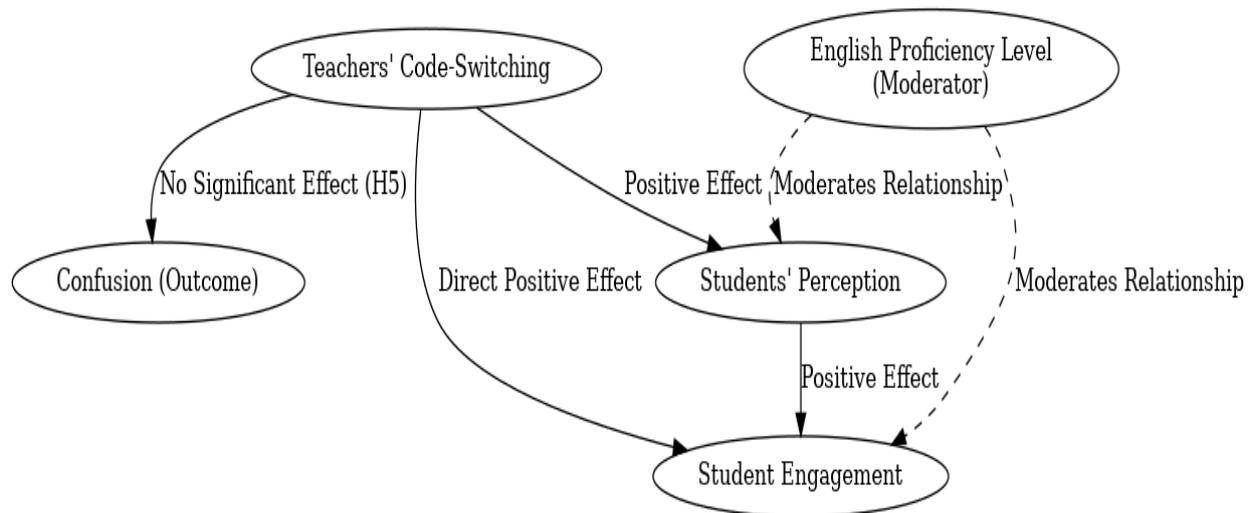
In Figure above conceptual framework showing the relationships between Teachers' Code-Switching, Students' Perception, and Student Engagement.

3   METHODOLOGY

3.1 Research Design:

This study employed a quantitative, correlational research design to investigate the relationships between teachers' code-switching, students' perceptions of code-switching, and their classroom engagement in Urdu–English bilingual settings. Data were collected through a structured survey, and statistical analyses were conducted to examine associations among the variables.

3.2 Sample Size:

The data was collected from 203 student participants aged between 15 and 27 years. Sample size was determined using Cohen's (1992) guidelines and G*Power analysis.

3.3 Procedure:

The participants of the study were students learning Urdu, English, and Pashto, aged from 15 to 27 years, in Pakistan's multilingual and bilingual classrooms. Ethical permission was obtained before data collection, and all ethical rules were strictly followed, including informed consent and assurances of confidentiality for the participants.

Convenience sampling was the method employed, and the respondents were chosen according to their availability and willingness to participate. The study involved 203 individuals who learned from different languages and educational levels (undergraduate, higher-secondary, and secondary). Data was collected using a self-administered composite questionnaire consisting of three standardized instruments, namely the Short Student Engagement Scale (Fredricks et al.), the Students' Perception of Teachers' Code-Switching Scale (Ahmad & Jusoff), and Gulzar's Classroom Code-Switching Functions Questionnaire. Students were further asked to respond to the questionnaire that consisted of demographic data in terms of their ages, sexes, educational levels, mother tongues, primary classroom languages, as well as individually rating how they viewed their proficiency in English.

The scope included both modes of distribution, that is, online through Google Forms and hard copies, permission for the data collection was obtained from the respective institutions. Clear instructions were given to participants, and clarifications were made as appropriate to ensure that the questionnaires were accurately filled out.

4. DATA ANALYSIS:

After data collection, responses were coded and entered into the Statistical Package for Social Sciences (SPSS) for analysis. The analysis was carried out in the following steps:

Descriptive Statistics: Frequencies and percentages were computed for demographic variables: gender, group age, and education levels, mother tongue, and primary classroom language. It calculates mean and standard deviations for the three study scales, i.e., Gulzar's Classroom Code-Switching Functions Questionnaire, Students' Perception of Teachers' Code-Switching Scale, and Short Student Engagement Scale.

Reliability Analysis: Cronbach's Alpha was computed to assess the internal consistency of each scale. The Gulzar's Classroom Code-Switching Functions Questionnaire, Students' Perception of Teachers' Code-Switching Scale, and the Short Student Engagement Scale were all evaluated for reliability.

- **Pearson Correlation:** This analysis was used to examine the relationships between teachers' code-switching, students' perceptions of teachers' code-switching, and student engagement.
- **Simple Linear Regression:** Regression analysis was conducted to determine the predictive power of teachers' code-switching on student engagement.
- **Independent Samples t-test and One-Way ANOVA:** These tests were performed to explore significant differences in teachers' code-switching and students' perceptions across demographic variables such as gender, English proficiency levels, and mother tongue.

4.1 RESULTS AND DISCUSSION

This section consists of findings associated with the hypotheses and purpose of the study. The reliability of the scales and Statistical analyses were used to find the relationship between the variables.

Table 1

Descriptive Statistics of Demographics Variables (N = 203)

Demographic Variables	n	(%)
Gender		
Male	124	61.1
Female	79	38.9
Age		
15-19	52	25.6
20-24	83	40.9
25-26	51	25.1
27	17	8.4
Education Level		
Undergraduate	94	46.3
Matric	33	16.3
Intermediate	76	37.4
Mother Tongue		
Pashto	192	94.6
Urdu	11	5.4
English Proficiency		
Low	33	16.3
Medium	148	72.9
High	22	10.8

Note; n = 203, and % = 100

Table 2

Psychometric Properties of Scales

Scales	M	SD	Range	Cronbach's α
Code-Switching	54.90	8.06	18–75	.864
Students' Perception of Teachers'	34.93	5.27	12–54	.699
Student Engagement Scale	61.28	7.34	38–74	.839

Note. N = 203

Table 2 shows the psychometric properties of the three scales used in the study. The mean level of Code-Switching was found to be 54.90 (SD = 8.06) with a possible range of 18-75, and a Cronbach's alpha of .864, which signals high internal consistency. Mean score for Students' Perception of Teachers' Code-Switching is 34.93 (SD = 5.27) with a range of 12-54, and Cronbach's alpha=.699, which indicates acceptable reliability. The Student Engagement Scale mean level of measure was 61.28 (SD = 7.34) with a possible range of 38-74 and a Cronbach's alpha of .839, which indicates good reliability. The overall results demonstrate that the instruments used in the study were psychometrically sound and reliably measured the constructs intended for them.

Table 3

Descriptive Statistics and Pearson Correlation of Study Variables

Variables	N	M	SD	1	2
1. Code-Switching	203	54.90	8.06	—	.240**
2. Students' Perception of Teachers' Code-Switching	203	34.93	5.27	.240**	—

Note. N = 203. ***p < .01** (two-tailed).

Table 3 presents the descriptive statistics and Pearson correlation among the study variables. The mean score of Code-Switching was 54.90 (SD = 8.06) while Students' Perception of Teachers' Code Switching had a mean of 34.93 (SD = 5.27). Results showed a moderate positive correlation between both the variables (r = .240, p = .001), which suggests that higher levels of teachers' code-switching are associated with more favorable student perceptions towards it.

Table 4

Regression Coefficients.

Variable	B	β	SE
Constant	37.001	—	3.120
Code-Switching	0.442	.485	0.056

R^2 = .235, F(1, 201) = 61.857, p < .001

Note N=203

Table 4 shows the predictive effect of Code-Switching on Student Engagement among participants. The regression model was found statistically significant, F(1, 201) = 61.857, p < .001, accounting for 23.5% of the variance in Student Engagement, R^2 = .235. The results state that higher levels of teachers' code-switching significantly predicted higher student engagement (β = .485, p < .001), which supposedly means that when teachers code-switch, from one language to another, students are more behaviorally, emotionally, and cognitively engaged in the class.

Table 5

One-way ANOVA for English Proficiency Groups on Perceived Benefits of Teachers' Code-Switching

English Proficiency	N	M	SD
Low	33	37.10	2.57
Medium	148	35.20	5.67
High	22	34.80	5.27

ANOVA Summary

Source	SS	df	MS	F	P
Between Groups	80.96	2	40.48	4.12	.018
Within Groups	5526.08	200	27.63		
Total	5607.03	202			

Note. N = 203. *p* < .05

Table 5 contains one-way ANOVA output for the difference in perceived benefits of teachers' code switching among students of different levels in English. Students with low proficiency obtained the highest mean score, M = 37.10, SD = 2.57, followed by medium proficiency, M = 35.20, SD = 5.67, and high proficiency, M = 34.80, SD = 5.27. Differences were statistically significant, $F(2, 200) = 4.12$, p = .018, such that students with lower English proficiency reported greater perceived benefits from teachers' code-switching than those with medium or high proficiency.

Table 6

One-sample t-Test on Students' Confusion Scores Due to Teachers' Code-Switching

Variable	Test Value	M	SD	t	df	p
Confusion Score	3	3.05	0.95	0.72	202	.472

Note. N = 203. *p = .519*

Table 6 presents the results of a one-sample t-test conducted to determine whether students' confusion scores differed from the neutral midpoint value of 3. The analysis reveals that the mean confusion score M = 3.05 and SD = 0.95 does not differ significantly from the test value, t (202) = 0.72, p = .472. This infers that students experienced no significant increase in confusion from the teachers' code-switching.

Table 7

Independent Samples T Test for gender.

Variables	Male		Female				
	M	SD	M	SD	t	P	d
Code-Switching	54.60	8.64	55.35	7.07	-0.645	201	.519

Note. N = 203. Equal variances were assumed. *p* < .05

Table 7 presents the independent samples t-test results comparing male and female students on the Code-Switching scale. The male students had an M = 54.60, SD = 8.64; the

female students had an M = 55.35, SD = 7.07 and thus indicated no significant difference in their response, t(201) = -0.645, p = .519; on this ground it is safe to say that gender does not play a significant role when it comes to the perception of students towards teachers and their frequency of code-switching.

4.2 DISCUSSION

The present study investigated the role of teachers' code-switching in shaping students' academic experiences in Urdu–English bilingual classrooms. The central objective was to determine whether strategic code-switching enhances students' comprehension of complex content, fosters engagement, and offers differentiated benefits depending on proficiency level, while also examining its impact on motivation, comfort, participation, and confusion. Data were collected from 203 students using standardized instruments.

The first hypothesis predicted a positive relationship between code-switching and students' understanding of difficult concepts. As shown in Table 3, a significant positive correlation was found (r = .240, p < .01), suggesting that teacher-initiated switches to the native language support students' comprehension. This finding resonates with previous research (Ahmad & Jusoff, 2009; Lin, 2013), which demonstrated that limited and purposeful use of L1 reduces cognitive load and facilitates access to content in English-medium classrooms.

The second hypothesis proposed that code-switching would positively predict student engagement. The regression analysis (Table 4) confirmed this expectation, showing that code-switching accounted for 23.5% of the variance in engagement (R^2 = .235, F(1, 201) = 61.857, β = .485, p < .001). Students exposed to greater levels of code-switching reported higher behavioral, emotional, and cognitive engagement. This finding aligns with prior evidence (Gulzar, 2010; Lin, 2015) indicating that judicious use of the first language can sustain attention and foster active participation.

The third hypothesis assumed that students' proficiency levels would influence their perceptions of code-switching. Results from the one-way ANOVA (Table 5) supported this assumption, showing significant group differences (F(2, 200) = 4.12, p = .018). The mean scores indicated that low-proficiency students (M = 37.10) reported greater benefits compared to medium- (M = 35.20) and high-proficiency students (M = 34.80). These findings support the idea that code-switching provides essential scaffolding for learners with limited command of English, consistent with earlier studies emphasizing its compensatory role (Cook, 2001; Sert, 2005).

The fourth hypothesis suggested that code-switching would improve students' comfort, motivation, and participation. Although these variables were not directly assessed, indirect evidence can be inferred from the positive association with engagement. This pattern indicates that code-switching may contribute to a more supportive and participatory classroom environment, a view echoed by Sharma (2006). Nonetheless, future studies are needed to examine these dimensions directly.

The fifth hypothesis anticipated that code-switching would not lead to higher levels of confusion. As indicated in Table 6, a one-sample t-test revealed no significant deviation from the neutral midpoint (t(202) = 0.72, p = .472). This suggests that code-switching did not increase confusion, consistent with studies (Khan et al., 2016) showing that confusion typically arises from unplanned or excessive switching, rather than from strategic, well-timed use.

Gender-based comparisons provided additional insights. As reported in Table 7, there were no significant differences between male and female students (t(201) = −0.645, p = .519). This suggests that both groups perceived teachers' code-switching in similar ways, indicating

that gender is not a moderating factor in this context. Instead, proficiency level appears to play a more decisive role.

Overall, the findings highlight that students generally view teachers' code-switching as beneficial for comprehension and engagement, particularly those with lower proficiency levels, while it does not contribute to confusion or gender-based disparities. Collectively, the results underscore that code-switching, when implemented purposefully and sparingly, serves as an effective pedagogical strategy within bilingual classrooms, complementing the broader goals of English-medium instruction.

The findings of this study carry important implications for educational practice and policy. First, the results suggest that purposeful and limited code-switching can serve as an effective pedagogical tool, particularly in bilingual classrooms where students have diverse proficiency levels. Teachers may use code-switching strategically to clarify difficult concepts, provide instructions, and reduce cognitive load without undermining the goals of English-medium instruction. Second, the study highlights the importance of teacher training. Pre-service and in-service programs should equip teachers with the skills to decide *when* and *how* to switch languages for maximum learning benefit. Training should emphasize that code-switching is not a substitute for English exposure but rather a scaffold that facilitates comprehension and engagement. Third, at the policy level, the results indicate that code-switching should be viewed as scaffolding rather than a deficiency. Policymakers and curriculum designers should recognize its potential in improving student outcomes, particularly for learners with lower English proficiency. Guidelines that encourage teachers to integrate code-switching selectively can help balance language immersion with accessibility of content.

5. CONCLUSION

The present study explored the role of teachers' code-switching in Urdu–English bilingual classrooms and its influence on students' understanding, engagement, and perceptions. The findings demonstrated that code-switching was positively associated with comprehension and engagement, particularly for students with lower English proficiency, while it did not significantly increase confusion or vary by gender. These results suggest that code-switching, when used strategically and sparingly, functions as an effective form of pedagogical scaffolding.

The study contributes to the growing body of literature that views code-switching not as a barrier but as a supportive instructional tool in multilingual settings. By clarifying complex material, reducing cognitive load, and sustaining student motivation, code-switching can enhance learning outcomes while still supporting the broader goals of English-medium instruction. In conclusion, the evidence indicates that teachers should not entirely avoid code-switching; rather, they should integrate it purposefully to maximize student comprehension and engagement. When framed as scaffolding rather than substitution, code-switching has the potential to bridge linguistic gaps and create more inclusive and effective bilingual learning environments.

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