

Exploring Translanguaging, Transmodality, and AI in English Learning:

A Case Study at a Rural Bangladeshi College



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Exploring Translanguaging, Transmodality, and AI in English Learning:

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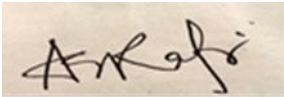
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Summer 2025

CERTIFICATE OF APPROVAL

I hereby declare that this thesis is the student's own work and effort. All sources of information incorporated here have been duly acknowledged. This thesis has been submitted with my approval.

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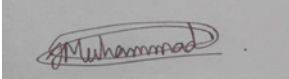
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DECLARATION

This thesis is a presentation of my original research work. Wherever contributions of others are involved, every effort is made to indicate this clearly, with due reference to the literature, and acknowledgement of collaborative research and discussions.

A handwritten signature in dark ink, appearing to read "Muhammad", enclosed within a rectangular box.

Muhammad Ibne Anis

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Department of English and Humanities

Dedication

to

My Beloved Family & Respectable Teachers

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Abstract

In Bangladesh, especially in the rural institutions, English language teaching (ELT) is still following the traditional, monolingual, memorisation-based, exam-centered, and text and guide-based approaches (Hamid & Honan, 2012; Sultana, 2014; Roshid & Haider, 2024). They neglected to consider the linguistic diversity of learners, their cultural relevance, critical thinking skills, and limited access to resources. However, these practices coexist with policy-level pushes for communicative and bilingual approaches (Karim et al., 2021), alongside limited teacher-led initiatives (Rafi, 2023). Global pedagogical trends highlight the benefits of translanguaging, multimodality, and artificial intelligence (AI) tools in ELT. Still, the combined application of these approaches in an under-resourced, Bangla-medium context is underexplored. This study examines the integration of translanguaging, transmodality, and AI tools in rural college English classrooms to promote inclusive and engaging learning experiences, with a focus on perceptions from both teachers and students. A qualitative case study design was followed to conduct the study in a rural Bangladeshi college with one teacher and six higher secondary students. Data were collected via class observations, interviews, focus groups, and a brief pedagogical intervention to gather reflections on these practices. Data were thematically analyzed using these theories: translanguaging, multimodality, and AI literacy. The findings of this study show that translanguaging improved participation, learners' confidence, and identity expressions. Using transmodal strategies enhanced the interactivity of learning content, increased interactions, and comprehension. AI tools facilitated idea generation and bilingual understanding, while also promoting critical thinking ability, despite failing to represent cultural relevance in the content (Rafi & Morgan, 2024). This study reveals that in rural Bangladeshi classrooms, it is possible to implement these approaches while overcoming limitations. Combining these methods can make rural ELT more inclusive and responsive to local contexts, helping educators and policymakers to address educational disparities.

Keywords: Translanguaging, Transmodality, Artificial Intelligence in Education, Rural English Language Teaching, Bangladesh, Inclusive Pedagogy, ELT, Cultural relevance, Critical thinking.

Chapter 1

Introduction

Many educational contexts in the Global South remain under-resourced and disadvantaged in English language learning, following the monolingual instructional practices (Hamid et al., 2023). This rigidity overlooks learners' linguistic repertoires and innovative modern pedagogical practices (Tian & Rafi, 2023). Technological advancement remains hyphenated in education. English is a compulsory subject from the primary level to the higher secondary level education in Bangladesh (Rafi, 2025). In rural Bangladesh, education is adopting these outdated practices to teach English (Hossain, 2016; Roshid & Haider, 2024).

In consequence, the learners face comprehension difficulties, and the fear of English is deeply rooted. On the other hand, the globalisation of English demands inclusive and student-centred pedagogies as English is the lingua franca and the language of trade. Demands a revaluation of these practices in Bangladesh, particularly in the rural classrooms (Rahman, 2022). This study explores how translanguaging, transmodality, and artificial intelligence can improve English language teaching in rural contexts. García and Wei (2014) pioneered the translanguaging theory; according to their idea, translanguaging is a practice where learners are allowed to use their full linguistic repertoire, blend languages fluidly to communicate, make meaning, express identity, and reduce learners' anxiety. Multimodality complements this approach as it uncovers the real meaning beyond the language itself, by incorporating visual, auditory, spatial, gestural, and other semiotic modes of communication (Kress & van Leeuwen, 2001).

Meanwhile, Artificial intelligence (AI) is a mechanical system that can act or think intelligently (Russell & Norvig, 2015), performing tasks like problem-solving, learning, and language generation. In the field of education, AI literacy includes the ability to understand, access, apply, and critically evaluate these tools (Ng et al., 2021; Long & Magerko, 2020). Moreover, AI tools like ChatGPT and Google Translate offer alternative methods to engage users and spark curiosity in English language learning through text generation, translation, and content summarization. The implementation of translanguaging, multimodality, and AI has increased in global English language teaching trends. These three strategies emerged as an interconnected framework that benefits all language learning contexts; rather, these approaches should not be seen as isolated strategies. Despite these global developments, the rural Bangladeshi context remains underexplored.

Many international and local studies' findings show how these approaches support inclusive learning. Their relevance and practical implementation in under-resourced, Bangla-medium institutions and rural Bangladeshi classrooms for English language teaching are still largely unexplored. Sultana (2014) demonstrated the reality of ELT practices where the students are frequently marginalised, as most pedagogies are highly exam-oriented and memorisation-based, prioritising content over learners' voice, creativity, and cultural context. This study, therefore, investigates how these global teaching practices can effectively be adapted into a rural college classroom in Bangladesh.

Translanguaging is widely recognized as an empowering pedagogical strategy. That encourages critical thinking, engagement, and bridges linguistic gaps. Rafi and Morgan (2024) argue that it allows students to construct meaning by utilising their full linguistic ability, especially in multilingual classrooms. Translanguaging promotes emotional expression,

confidence, and identity development, where English is taught as a foreign language. However, in Bangladesh, this practice is rarely implemented in rural and/or Bangla medium colleges due to institutional rigidity, lack of teacher training, and limited awareness (Almahmoud, 2021; Sultana & Bolander, 2021).

Multimodality enhances learning accessibility. Tai and Li (2021) and Vogel et al. (2018) show that learners with lower language proficiency understand the learning content more effectively by combining visuals, gestures, and other semiotic resources with textual input. Reducing cognitive load and making learning more engaging enables students to process content in multiple ways, particularly in multilingual classrooms. Zheng and Drybrough (2023) emphasise that where reading-based instruction is dominant, multimodal learning can aid long-term memory retention of that context for learners.

The use of artificial intelligence is an emerging area in ELT. Yang and Lin (2025) highlighted AI as a useful tool that promotes learners' autonomy, enhances writing abilities, and enables bilingual learners' comprehension. AI is helpful for planning, brainstorming, and material generation (Barret & Pack, 2023). However, Ossa Parra and Proctor (2021) and Moore et al. (2016) mentioned against the uncritical and unethical use of AI, warning that AI tools can create overdependence, and can lead to a lack of critical thinking, not able to align with learners' cultural context as most AI platforms are initiated from the West which limits their Global South learners' relevance. This study reveals that these limitations are critical in rural Bangladesh, where students value personal connection, cultural relevance, and guided instruction.

Altogether, these studies acknowledge the value of concepts individually. However, how translanguaging, multi/transmodality, and AI combine and interact within the rural bilingual education context, especially in the Global South, remains underexplored. As Ghosn-Chelala (2020) argued, introducing the socio-political and cultural contexts of learners into ELT reformation can be genuinely transformative. This study aims to offer grounded insights from an under-researched population and contributes to that growing body of work.

Despite the interest in inclusive and digital pedagogies in education, little is known about their application in rural, Bangla-medium colleges in Bangladesh. As Hamid and Honan (2012) argue, most ELT studies focus on urban tertiary contexts or English-medium schools in Bangladesh, mentioning a significant knowledge gap regarding the rural context, students' and teachers' perspectives, and applications of translanguaging, transmodality, and AI in the classroom. While some research (Karim et al., 2021; Rafi & Morgan, 2022; Rafi, 2023) has documented infrastructural and implementation challenges and policy gaps, the experiential perspectives of rural teachers and students remain underrepresented.

Moreover, existing studies often examine these strategies in isolation. There is limited empirical evidence and data on how translanguaging, transmodality, and AI can be integrated into a coherent pedagogical approach that supports learners' identity, voice, cultural responsiveness, and critical thinking/engagement (Rahman & Hu, 2025; Khan et al., 2024). Most importantly, the literature does not clearly explain how the rural students' emotions, culture, and local context influence their English language learning. Translanguaging can reduce fear, hesitation, and uneasiness while connecting students' cultural and social worlds with classroom materials. When students are given the opportunity to draw on both Bangla and English, they gain confidence and develop stronger engagement and understanding of complex texts, which

highlights how emotions and cultural context directly shape learning outcomes (Rafi, 2023). These factors play an essential role in how they relate language and technology. This study addresses these gaps by focusing on the lived experiences of rural college teachers and students as they introduced these practices with practical value during a pedagogical intervention.

Examining these practices in combination with a rural context offers a holistic view of how language learning can become more culturally relevant, inclusive, student-centred, and interactive. This research contributes to the decolonisation of English language teaching by bringing attention to the voices from underprivileged contexts, challenging one-size-fits-all perspectives, and promoting locally grounded teaching methods alongside global innovation and approaches to education.

Through classroom observations, semi-structured teacher interviews, focus group discussions, and a pedagogical intervention, the study addresses the following research questions:

1. To what extent are translanguaging, transmodality, and AI tools present in English language teaching and learning in a rural Bangladeshi college?
2. How do the teacher and students perceive and critically reflect on the use of translanguaging, transmodal strategies, and AI in their teaching and learning experiences?
3. How do the implementations of translanguaging, transmodal strategies, and AI impact students' perceptions of their voice, cultural identity, and engagement in critical discourse in the classroom?

By addressing these questions, this research fills a critical gap in the literature and offers actionable insights for policymakers, curriculum developers, and educators working in similar conditions.

Chapter 2

Literature Review

In recent years, the English language learning strategies have evolved and been updated. The importance of the English language has also increased as it has become the lingua franca. In the field of English language education, the integration of translanguaging, multimodal learning, and artificial intelligence (AI) tools has gained increasing attention. Recognizing learners' multilingual and digital realities, challenging traditional monolingual and text-based pedagogies. Translanguaging allows learners to use their full linguistic competencies, while multimodal approaches engage various modes and semiotic resources for meaning-making purposes. AI tools, such as Google Translate and ChatGPT, provide learners with new ways to learn languages, offer real-world applications, and impart valuable knowledge.

This literature review examines the theoretical perspectives and empirical studies of these approaches and their integration in the EFL context. Like other Asian countries, English is included as a compulsory subject in Bangladesh from the primary level to the higher secondary level. However, the overall proficiency of English learners is still below the desired level. This study focuses on rural classrooms at the Government College. The students from underprivileged backgrounds often face challenges while learning English. These challenges arose from a combination of limited English exposure and inadequate technological equipment and knowledge. The traditional exam-centric teaching practice is also a reason for that. Despite these difficulties, translanguaging, transmodality, and the use of AI are emerging as practical strategies. This literature review chapter helped to create a foundation for this study. Identifying

the gaps from previous literature and investigating how these elements shape language learning, identity, and cultural preservation in a rural Bangladeshi college context.

Translanguaging: Pedagogical, Cognitive, and Political Dimensions

Translanguaging involves the use of a speaker's full linguistic ability (Le, 2024), which is not restricted to the socially and politically defined boundaries of distinct languages (Danjo, 2018). It is the process that allows the bilingual (or multilingual) children to utilize the entire linguistic repertoire to make meaning without treating each language as separate. García (2009: 45) defines translanguaging as how bilingual people use language to make sense of and navigate their bilingual environments. Traditionally, bilingualism is defined as speakers having a first language (L1) separate from a second language (L2). In contrast, translanguaging is not merely switching between languages (Garcia & Wei, 2014); it is more than that. It promotes understanding and learning, and encourages students to apply their full linguistic abilities for knowledge building (García & Kleifgen, 2020). Supports learners to use their entire linguistic repertoire, breaking the traditional language barriers and helping learners to harness the cognitive benefits of multilingualism (Almahmoud, 2021; Tîrnovan, 2023). It promotes comprehension, reduces anxiety, and empowers learners to express their own identity and cultural knowledge. As noted by García and Li (2014), the translanguaging strategy enhanced students' cognition by allowing them to process information in their comfortable language, a view echoed by Rafi (2025) highlights translanguaging as an inclusive and decolonial pedagogy that validates learners' multilingual realities.

Many studies support the beneficial role of translanguaging in language teaching and learning. According to Ortega (2020), Palmer et al. (2014), and Rafi(2022), implementing

translanguaging as a pedagogical strategy in teaching can reduce learners' anxiety and increase L2 confidence. Also, encourage the learner to participate actively in the classroom, which deepens their understanding and supports them to think at a higher level (Baker, 2011).

Translanguaging effectively meets the diverse needs of learners. Yang and Lin (2025) found that emergent bilinguals, those with lower English proficiency, often rely on their first language (L1) for understanding and idea generation, using translanguaging primarily for support and expansion. In contrast, more proficient learners leverage translanguaging strategically for planning and developing their ideas, highlighting the rich potential of bilingual education. In writing, translanguaging has proved itself especially valuable. Many studies have been conducted on that, as evidenced by the statement. According to Sun and Zhang (2022), providing translanguaging feedback on writing can positively improve second-language writing performance. Also, the impact of translanguaging on reading comprehension is evident. Rahman et al. (2022) found that the students in the translanguaging intervention class demonstrated noteworthy comprehension scores compared to the control class.

Translanguaging is not only a part of language learning, but it also has a political and pedagogical standpoint, resisting the dominance of monolingual ideologies. Translanguaging carries a political dimension, both in research and pedagogy. It seeks to challenge the monolithic ideologies and policies that have historically guided language teaching and learning. (Li, 2022). Translanguaging is a decolonial medium as it recognises all students' linguistic repertoires as assets. Translanguaging policies and pedagogies invite all students to use their linguistic repertoires, which are identified and included in the learning process (Paulsrud et al., 2017, p. 16). Encourages inclusivity and equity in education.

In an EFL context, such as rural Bangladesh, translanguaging can be a powerful pedagogical tool. Students mostly rely on Bangla to support understanding, generate ideas, and relate to classroom ideas. This approach fosters bilingual identities while enhancing both language and content learning, allowing the natural integration of Bangla and English for content understanding (Rafi & Morgan, 2022; Rafi, 2023). Though this pedagogy has potential benefits, the implementation of translanguaging is to overcome ideological and practical challenges (Rafi,2023; Rafi & Morgan, 2022).

Translanguaging Space and Transmodal Learning

Translanguaging is not only a linguistic practice; it is also a spatial and semiotic process. Translanguaging should integrate all parts of the semiotic repertoire of bilingual learners, incorporating different types of materials and digital tools (Vogel, Ascenzi-Moreno, and García, 2018, p. 104). Li (2018) expands the theoretical framework of translanguaging space, allowing multilingual individuals to integrate aspects of their history, experiences, and environments into a cohesive expression of identity. As Li describes, ‘multilinguals bring together different dimensions of their personal history, experience, and environment; their attitude, belief, and ideology; their cognitive and physical capacity, into one coordinated and meaningful performance.’ This space encompasses both interactional translanguaging and performative translanguaging. Interactional translanguaging is defined as a space where learners co-construct meaning through multimodal communication; similarly, performative translanguaging space is where they express identity, resist linguistic hierarchies, and challenge dominant ideologies (Zhu et al., 2020; Tai & Li, 2021).

In these two types of space, transmodality (or multimodality) plays a critical role. Allows the learners to use a variety of semiotic tools, such as visuals, gestures, sound, and digital media, to support understanding and expression, especially in under-resourced environments. Tai & Li (2021) observed that, ‘the teacher is engaging in translanguaging practices as he synchronizes his English verbal utterances with his use of the iPad, which affords opportunities for him to utilize various semiotic resources...to facilitate the meaning-making processes in the classroom’. The concept of translanguaging is connecting other learning mediums, especially intertwined with multimodalities, as it encompasses the use of different semiotic systems and different modes of communication (Zheng & Drybrough, 2023).

These types of practices are very much relevant in rural Bangladeshi classrooms, where students often rely on non-verbal strategies to make meaning due to limited English proficiency, lack of authentic language input exposure, and exam-oriented instruction. Implementing trans-modal methods into pedagogy allows for more inclusive and culturally responsive learning, as it depicts diverse ways students communicate and understand the content; moreover, for those students who come from socially marginalized backgrounds whose first language is not English. Yang and Lin (2025) noted that when AI is incorporated into translanguaging, it allows students to think fluidly and transform their ideas into well-organized written work. In this manner, translanguaging and transmodality are intertwined, creating a learning environment that values linguistic diversity, fosters identity expression, and supports meaningful engagement in language learning (English).

AI Literacy in Language Education

For language learners, especially those with limited resources, tools like ChatGPT, Google Translate, and speech-to-text applications provide new opportunities to engage with language through activities such as brainstorming, translation, revision, and reflection.

Many studies have been conducted on Machine Translation, a commonly used form of AI. Cometh and García (2019) recognized it as a valuable tool within translanguaging-informed pedagogy. ‘Machine translation can be incorporated into translanguaging-informed pedagogies...these pedagogies must be informed by the reality of students' semiotic meaning-making practices’ (Seltzer, 2017). Students from different language backgrounds often rely on these kinds of applications as support for vocabulary development, to translate ideas from L1 to English, and to revise their writing. As Moore et al. (2016) stated, ‘the widespread availability of MT and other online language support tools... enables EAL students from diverse language backgrounds to make use of multiple technologies during the writing process’.

Generative AI tools like ChatGPT are also becoming influential in language learning, especially in EFL writing. These tools can answer questions about language skills. They can create grammatically correct sentences and help learners to write organized texts (Wei, 2023). Yang and Lin (2025) further observed that ‘students do not excessively depend on AI-generated translations, rather using their metalinguistic awareness for cross-checking, which demonstrates their writing autonomy, and utilizing translanguaging with AI to clarify prompts, refine sentences, and generate ideas; this supports the lower-proficiency students to improve their writing skills significantly’. This clearly demonstrates AI's potential to bridge educational disparities and foster more equitable opportunities in language learning. These findings from a

profound scholar's study suggest that students use AI not just passively but as an active resource that supports critical thinking and language development.

From a pedagogical perspective, AI literacy, translanguaging, and trans modality can support inclusive, flexible, and context-responsive language learning. The use of AI tools allows learners to use their full linguistic abilities and different semiotic modes to construct meaning in personalized and accessible ways. Learners utilise their metalinguistic ability to compare AI-generated translations for better understanding, not unquestioningly believing AI (Yang & Lin, 2025). Similar to Ossa Parra & Proctor's (2021) study findings, which found that implementing translanguaging pedagogy and AI for feedback in students' first language can enhance their metalinguistic awareness and cognitive engagement. This illustrates how students do not solely depend on AI but rather use it in combination with their linguistic resources. Translanguaging-informed pedagogies need to ensure learners' reality by taking into account their practices of semiotic meaning-making (Vogel & García, 2017).

The inclusion of (trans) multimodal resources further supports this process. This multimodal approach demonstrates how the translanguaging process helped the students to think fluidly and transform those ideas into a well-written structure with AI-assisted semiotic resources (Yang & Lin, 2025). In bilingual (multilingual) and under-resourced classrooms where traditional English instruction primarily relies on memorization and grammar, the use of AI within a translanguaging and transmodal framework can foster more engaging, creative, and culturally relevant learning. Together, these elements can open possibilities for pedagogical practices that empower learners to use their full linguistic repertoire, digital tools, and multimodal tools to participate fully in language learning.

Teacher and Student Perspective

Teachers play an essential role in mediating the use of AI and translanguaging. Yang and Lin (2025) observed that 'educators can motivate learners to engage in AI-based translanguaging, enabling them to effectively employ their linguistic and semiotic skills, potentially providing significant benefits.' Barrett and Pack (2023) conducted a study on how teachers and students view the application of generative AI in writing. It was discovered that during the initial phases of writing, like brainstorming and outlining, students showed a preference for employing AI for generating and organizing ideas. Learners utilized their mother tongue for resolving issues, combined semiotic tools for brainstorming, and engaged in repetitive translanguaging techniques to express their ideas in English (Yang & Lin, 2025).

Teachers, on the other hand, Li and García (2022) and Rafi and Morgan (2021)'s cases show that teachers are not aware of translanguaging in education. However, if the awareness increases, then the teachers can challenge the traditional practices. Phyak et al.'s (2022) study showed that teachers adopted and incorporated learners' mother tongue into their teaching to facilitate learning and rejected the English-only ideology when they were aware of the impacts of translanguaging in language learning and teaching. The transformative influence of the teacher was pivotal in enabling students to utilize their linguistic skills in their learning process. Educators are crucial in promoting efficient learning via translanguaging and artificial intelligence instruments. Cinaglia and De Costa (2022) highlighted the importance of fostering a critical understanding of cross-language among educators, who are primarily responsible for teacher training. While generative AI tools support brainstorming and basic-level writing tasks, they do not have the capacity to initiate, guide, or motivate learning. Generative AI tools can not encourage learners to learn a language, but a teacher can. AI can assist the learners in language

learning, but it relies on learners' prompts and motivation (Yang & Lin, 2025). Teacher precipitation and promoting these practices are essential.

By utilizing students' existing language skills, AI literacy activities can enhance learning outcomes for multilingual learners. Adopting a translanguaging strategy enables students to use their full range of language skills to facilitate swift understanding of AI concepts, allowing the learners to understand how to apply, create, and critically use AI. A thorough knowledge of the use of artificial intelligence enables learners to critically evaluate AI-based technologies in relation to their individual learning needs (Ojeda-Ramirez et al., 2024). While considering the future, teachers must guide the students. Accordingly to Tseng and Warschauer (2023), teacher guidance is essential, and further, they provided a framework to help students use AI efficiently in language learning. Teachers and students agree that artificial intelligence is beneficial for teachers and students. However, teachers showed a more favorable perspective on incorporating AI in teaching (Barret & Pack, 2023).

Present Situation in Bangladesh

In Bangladesh, English language teaching faces many challenges. The dominance of Bangla as the national language and medium of instruction is a key reason for that. However, the National Education policy emphasizes bilingual education to enhance students' communicative and cognitive development. According to Karim et al. (2021), the policy outlined by the Ministry of Education in 2020 advocates for a bilingual approach. It integrates not only Bangla but also English to enhance learners' communicative and cognitive skills. This approach aims to balance the need to maintain linguistic heritage and prepare learners with the inevitable abilities to compete in a globalized world (Hamid & Rahman, 2019; Rafi & Morgan, 2022). However, in

reality, in practice, English language instruction in higher secondary level education mostly depends on Bengali instruction. Still implementing Grammar translation methods, the focus on real-world communication is not responding. Teachers frequently "communicate with students in Bangla, ignoring the purpose of the ELT textbook" and focus predominantly on reading and writing skills, "simply ignoring their learning and speaking abilities" (Awal,2023). As a result, students struggle to acquire practical English proficiency. These challenges are also intensified by "the lack of enough interactive sessions, the lack of logistical support, and poor infrastructure" (Nayeen, 2020), which create barriers to effective English language learning across much of the country. Also, the lack of teacher training and system support means this is rarely achieved in practice. Sultana and Bolander (2021) point out that "a lack of awareness about the potentiality of translanguaging" may explain why such approaches are not yet widely adopted in classrooms despite their potential to support multilingual learners more effectively.

Research Gap and Rationale

This literature review examined the integration of translanguaging, multimodal learning, and AI tools in English language education, with a focus on rural Bangladeshi classrooms. Existing studies have shown that these approaches offer benefits in improving language learning outcomes. However, there is limited research on how they work together in a rural setting. This study aims to fill that gap by examining how students and a teacher use translanguaging and AI tools in classroom practice through multimodal/transmodal strategies. The objective of this research is to understand how these methods can support better English learners, learner agency, and identity expressions by focusing on a rural higher secondary setting. Hopes to offer practical insights for inclusive and context-based English language learning and teaching in Bangladesh.

Chapter 3

Methodology

Research Design

A qualitative approach was followed to conduct the study. A Case study design has been employed to investigate how translanguaging, transmodality, and artificial intelligence (AI) tools were perceived, experienced, and critically understood by a teacher and students at a rural college in Bangladesh. While translanguaging has been widely researched globally (García & Wei, 2014; Li, 2018), in Bangladesh, it is mainly studied in tertiary and EMI-based institutions (Sultana, 2014; Rafi & Morgan, 2022; Rafi, 2023). Focusing on linguistics, on the localised use alongside multimodality and AI tools in under-resourced BMI institutions, secondary-level education, and bilingual contexts remains underexplored (Hamid & Rahman, 2019; Sultana & Bolander, 2021). This research aimed to examine the presence and the combinational use of translanguaging, transmodality, and AI in rural college English classrooms to understand how teachers and students interpret these practices in terms of their identities, cultures, voices, and critical thinking.

The nature of this study was interpretive, focusing on participants' perspectives and lived experiences. The critical approach was utilised to reveal how language and technology practices intersect with issues of identity, power, and cultural relevance.

Research Settings

This experimental investigation was conducted in the Classroom of the rural X Government College of Bangladesh, where English was taught as a compulsory subject at the

higher secondary level. Diverse linguistic and socio-economic backgrounds were available, many of whom use Bangla and local dialects in their daily communication. Many students come from remote areas and have limited opportunities, often due to financial issues that force them to work for their livelihoods.

Digital resources and technology were available, but their availability is limited and restricted. The classroom was equipped with a smart TV and also had an internet connection, but these resources were not integrated into the classroom by the teachers. Instead, teaching largely followed traditional methods. However, the teacher and students had access to self-technological tools and the internet, but were heavily dependent on guidebooks and memorization-based strategies. Students use technologies and different artificial intelligence tools outside the classroom, but are restricted from using them in the classroom. These aspects make the setting compelling, as they reveal how students integrate traditional learning methods with emerging technological tools in their educational practices.

The setting provided a relevant context that demonstrated how translanguaging and AI tools can be utilized in an under-resourced English language classroom through multiple modes. It shows a gap between available resources and their actual use in the classroom and teaching. It also highlights the institutional limitations and students' growing personal access to technology. This setting reflects the reality of rural college English learning and provides insight into how translanguaging, transmodality, and AI tools can be integrated meaningfully into English classrooms that remain under-resourced but digitally connected.

Participants

This research conducted a small-scale qualitative study. One English teacher in his/her mid-30s with 1 year of teaching experience in a rural government college. S/he uses Bangla, English, and occasionally the vernacular language to explain her topics to the students. Moreover, four male and two female students, aged 16 to 18 years, from diverse streams at the selected rural college, have been chosen based on their active participation in classroom discussions. They were informed of the study's purpose and also had the freedom to withdraw at any time. Their shared perspectives on translanguaging, transmodality, and AI tools provided valuable insights. That helped to examine how these were understood and experienced in real classroom settings. This small sample allowed for in-depth exploration of individual experiences, interpretations, and reflections.

Data Collection Tools

To collect rich and meaningful data, the study employed three primary tools. An observation checklist was used to record how languages, different modes, and digital tools were used in the classroom. Two English classes were observed before the intervention to understand the natural teaching -learning environment and how translanguaging, transmodality, and artificial intelligence were being used, if at all. The observations were conducted at a rural college in Bangladesh with second-year HSC students. Observed the same teacher twice; each session lasted forty minutes, which further ensured consistency and reliability in the findings. The observation focused on:

- Language choice (use of local dialects, Bangla, and English)
- Use of multi/transmodality strategies (gestures, tone, facial expressions, visual aids, and different types of modes)

- Presence of AI or digital tools
- Peer, or group work.
- Teacher and student interaction.

Moreover, the semi-structured interview with the teacher explored the teacher's understanding and reflections on translanguageing and the use of AI in teaching. The focus group discussions with students provided insightful information about their learning experiences, language use, and perceptions of translanguageing, transmodality, and AI. These tools were used to gather both practical activities and the personal thoughts of the participants. Lastly, the pedagogical intervention was implemented through activities and reflective forms to evidence the practical application of the theories.

Ethical Considerations

- Informed consent was obtained from all participants.
- Participation was voluntary, with the right to withdraw at any time.
- Anonymity and confidentiality were maintained.
- The intervention was accordingly designed with cultural sensitivity to local norms, linguistic realities, and educational contexts.

Data Collection Procedure

The data were collected in three interconnected phases for robust and authentic data. The three phases followed are: 1. Pre-intervention interview and focus group discussion, 2. Pedagogical intervention 3. Post-intervention interview and focus group discussion. Table 1 shows how three phrases have been implemented and what activity was carried out.

Phase	Activity	Purpose	Focus/Details
Phase 1: Pre-Intervention	Classroom Observation	To establish a baseline of current teaching practices and identify gaps in translanguaging, multimodality, and AI integration.	-Observed 2 English classes to understand existing practices. -Focus: use of Bangla/English, translanguaging, multimodal strategies, AI tools (if any), teacher-student interaction. -Used a structured observation checklist for consistency and reliability.
	Semi-structured Interview with Teacher	To understand the teacher's perspective, teaching philosophy, and institutional stance on language and technology use.	- Explored the teacher's awareness, experiences, and beliefs about translanguaging, transmodality, and AI. - Gathered perspectives on language teaching and institutional policy. - Open-ended questions on teaching philosophy and attitudes towards language & technology.
	Focus Group Discussion (FGD) with Students	To capture students' voices, learning strategies, and perceptions about their identities and technology use in language learning.	- Conducted with six students. - Examined learning practices, use of Bangla and English, AI tools, and views on language learning & identity.

Table-1 continued

Phase	Activity	Purpose	Focus/Details
Phase 2: Pedagogical Intervention	40-minute Class Intervention	To test the effectiveness of translanguaging, multimodal strategies, and AI in a real classroom and observe their impact on student engagement and meaning-making.	- Introduced translanguaging for meaning-making. - Demonstrated transmodal strategies (multimodal learning). - Introduced basic AI tools, discussed potential & limitations. - Promoted critical thinking on how practices connect with voices, identities, and culture. - Explored integration of translanguaging, transmodality, and AI for deeper understanding.
Phase 3: Post-Intervention Reflection	Semi-structured Interview with Teacher	To evaluate the teacher reflections on the intervention and assess sustainability in practice.	- Gathered the teacher perceptions of translanguaging, transmodality, and AI. - Reflected on the feasibility of implementation and future directions.
	Focus Group Discussion (FGD) with Students	To understand student responses, perceived benefits, and challenges of translanguaging, multimodality, and AI in their learning.	- Explored students' experiences during the intervention. - Reflected on whether strategies made them feel seen, understood, or challenged. - Encouraged reflection on voice, cultural identity, and tool relevance.

Table-1

Data Analysis

All collected and recorded data, including observation notes. The interview and focus group discussion data were transcribed accordingly. A thematic analysis approach was implemented to analyse the data to identify the meaningful patterns related to language practices, technology use, and participants' reflections. A combination of data-driven insights and theory-informed coding was employed to ensure that the analysis remains grounded in participants' experiences while aligning with the conceptual framework.

Particular attention was paid to analysing how translanguaging and AI tools were used in the classroom, related to participants' identities, voices, and cultural contexts. The analysis also examined the impact of pedagogical interventions on engagement, critical thinking, and shifted perception.

Another key analytical focus was to demonstrate the interconnectedness of translanguaging, (trans) modality, and AI. Highlighting how translanguaging often occurs through the use of AI. These tools not only supported meaning-making across languages and modes but also revealed how students and teachers negotiated their linguistic resources in technology-mediated environments. The analysis was guided by translanguaging theory, multimodal learning theory, and AI literacy.

Theoretical Framework

Three intersecting theoretical lenses guided the study. Those are:

1. Translanguaging Theory (García & Wei, 2014): Understanding how learners flexibly use multiple languages to make meaning and express identity.

2. Multimodal Learning Theory (Kress & van Leeuwen, 2001): Recognizing the importance of multiple modes- text, image, sound, gesture- in learning and communication.
3. AI Literacy with a Critical Lens (Ng et al., 2021): Focusing not only on how learners use AI tools but also on how they understand, question, and evaluate them in socially and culturally relevant ways.

The theories mentioned above allowed the study to examine both practices and perceptions while concentrating on the roles of critical consciousness, cultural relevance, and students' voices. Furthermore, the study emphasised the connection between translanguageing, (trans) modality, and AI, where AI tools enabled learners to utilise their full linguistic repertoire and semiotic resources, fostering fluidity and promoting personalised, culturally relevant, and accessible pathways for future language learning.

Researcher Positionality

As a student from the Bangla medium, the same education settings and researcher allowed me to play both insider and outsider roles in this study. Familiarity with Bangla and local language usage and cultural experiences helped me to gain participants' trust and learn more about their perspectives on these theories: translanguageing, transmodality, and AI tools. My tertiary education and curiosity about these practices influenced my perspective on their potential application in rural classrooms. I was first introduced to multimodal theory, which explores how multiple modes are used in communication and learning, extending beyond language. The role of technology in language learning, especially the role of AI in education, is essential throughout my program; not only that, but it is also a mode of learning when used appropriately. My understanding of translanguageing developed through the courses and

mentorship under my supervisor, a key scholar in this field from Bangladesh. Additionally, attending the international conference, where Ofelia García and Lei Wei were the speakers, made me more engaged with this theory. In that conference, they both mentioned the importance of multimodality in translanguaging scholarship for developing knowledge learning. These academic experiences, combined with my curiosity and engagement with these practices, shaped my perspective on their practical application in rural classrooms. Familiarity with the Bangla medium background and local culture also enabled me to think critically about the reality of English learning in this context. I ensured reflexivity throughout the design process, data collection, and analysis by placing a strong emphasis on the voices of participants and their lived experiences.

Chapter 4

Discussion

This section explores the discussion and findings of the study. Investigates how translanguaging, multi/transmodality, and AI tools are experienced, interpreted, and reflected in a rural Bangladeshi college context. To conduct the research and collect data, classroom observation, semi-structured interviews with one English teacher, and focus group discussions with six students were involved. A short pedagogical intervention was also conducted to introduce these concepts. The aim was to examine how translanguaging, transmodality, and AI tools are interpreted and experienced in English language classrooms, with a focus on participants' voices, cultural identity/relevance, and critical thinking. Not only focusing on whether these practices appeared in the classroom, but also on how these elements contribute to learners' identity, voice, cultural relevance, and critical thinking.

A qualitative case study was undertaken to capture nuanced understandings from participants. This approach was implemented to investigate how the participants made sense of these concepts before and after the pedagogical intervention. The data are discussed in alignment with the research questions and thematically analyzed using the selected theories of translanguaging (Li, 2011; García & Wei, 2014; Rafi & Morgan, 2022), multimodal learning (Kress & van Leeuwen, 2001), and AI literacy. The structure of this chapter follows this sequence: classroom observations, pre-intervention interview and focus group discussion, reflections of the pedagogical intervention, and post-intervention interview and focus group discussion data.

Each phase is examined through direct participants' responses and is connected to relevant literature to identify similarities, contrasts, and unique findings. The analysis shows how the teacher and students in rural, multilingual settings interpret these teaching methods; simultaneously understanding how the use of these tools can support more inclusive, culturally grounded, and critically engaging learning experiences.

4.1. Class Observation Findings

4.1.1 Use of Translanguaging:

Translanguaging practice was available. The teacher frequently used both English and Bangla alongside local dialects. The teacher first read aloud the passage from the English textbook and explained the content in Bangla. Also, the teacher used the whiteboard to write the meaning of different words. For instance, while discussing the term 'consumerism', the teacher wrote that on the board and encouraged the students to use their full linguistic repertoire - local dialects, Bangla, and English to make meaning. For example, one student said 'Consumerism means what we buy. Initial response was in English but when teacher asked to elaborate, the student said 'আমরা যেইসব জিনিস সব সময় ব্যবহার করি আর যা যা মার্কেটিং করি তাই কনসুমারিজম' (Consumerism is the things we use all the time and everything we market). Although the response was incorrect, it ensured their participation in learning by allowing them to use their comfortable language and write the meaning of the word in Bangla on the board. The teacher also allowed flexibility in language for asking questions and/or giving instructions in Bangla, if the students needed to clarify using Bangla, even the local dialects; encouraging students to express their understanding in the language most comfortable for them. For instance, the teacher referring figure-2 and said 'তোমরা এই ছবি গুলো দেখে কি বুঝতে পারছ বলা?'

(Tell me what you understand by looking at these pictures?). One of the students explained a picture (figure-2) by saying, ‘ এই পিকচার (picture) দেখে বুঝতে পারছি ওরা মার্কেটিং (marketing) করতে গেছে’ (This picture demonstrates they have gone shopping). Further, the teacher again asked in English, ‘What do we usually buy?’. One student said ‘মার্কেট করার মত টাকা- পয়সা নাই’(I don't have enough money to do marketing). They mix the languages, even using local dialects, to respond or share their opinions. These practices echo Li's (2011, 2018) concept of the 'translanguaging space', where multilingual (bilingual) learners bring together various dimensions of their experiences, ideologies, and languages in one coordinated performance. Figure 1 provides a concrete representation of translanguaging practices in the classroom, as the teacher implemented translanguaging during class time.

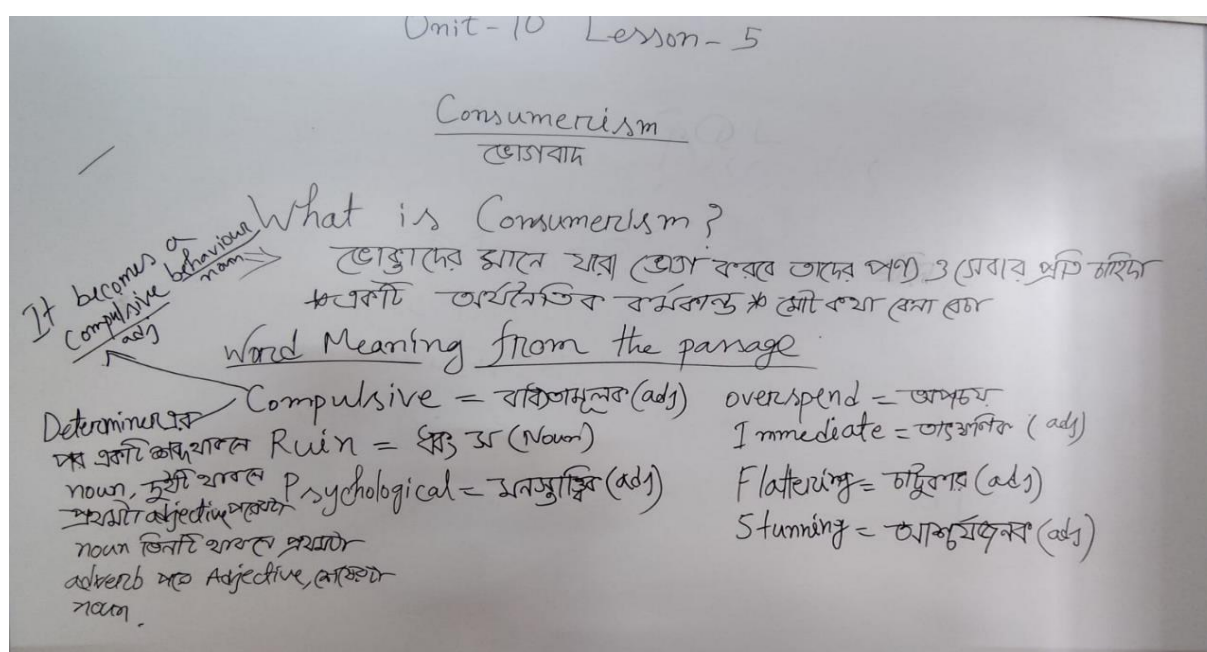


Figure-1

Students feel shy to talk in English, but some of them try to express themselves and communicate with the teacher in English. Students often started responses in English and shifted

to Bangla or local dialects when they struggled. Figure 1 and observation data demonstrate the practical and inclusive role of translanguaging in meaning-making and interaction, which reflects García and Wei's (2014) statement that translanguaging enables learners to access content more deeply by drawing on their complete linguistic resources. Furthermore, the observed pattern corresponds with García and Johnson's (2017) findings that translanguaging pedagogy acknowledges and respects learners' linguistic and cultural background.

4.1.2 Use of Multimodal (Transmodal) Strategies

Multimodal/transmodality was present in both sessions, though its extent varied. The use of different types of modes is really at the basic level, such as gesture, tone, and facial expressions. The teacher used gestures, tone modulation, and facial expressions to enhance comprehension. In the first class, pictures from the textbook (Figure 2) were used to prompt (previously mentioned) student responses and enable meaning-making in different languages. For instance, the teacher asked to explain the pictures from the textbook and share their understanding. One student stood up and began explaining in English, but shifted to Bangla when they faced difficulties expressing their knowledge in English. e.g., “this picture says, the people are going to market, and তারা অনেকে কেনাকাটা করছে.” When discussing an image, use mixed languages and describe it in own language. These observations represent the study of Tai and Li (2021), identified as 'performative translanguaging', where semiotic resources (e.g., visuals, gestures) support classroom interaction.

In the second class, the use of multi/transmodality was more limited. The teacher drew a flow chart on the board (Figure 3) to explain how to write one, using a visual element with oral explanation, which is the only notable instance in that session. This aligns with Kress and van

Leeuwen's (2001) statement that learning is inherently multimodal and involves multiple modes together to support understanding.

Lesson 5 Consumerism

Look at the pictures. What is common among them?



Figure-2

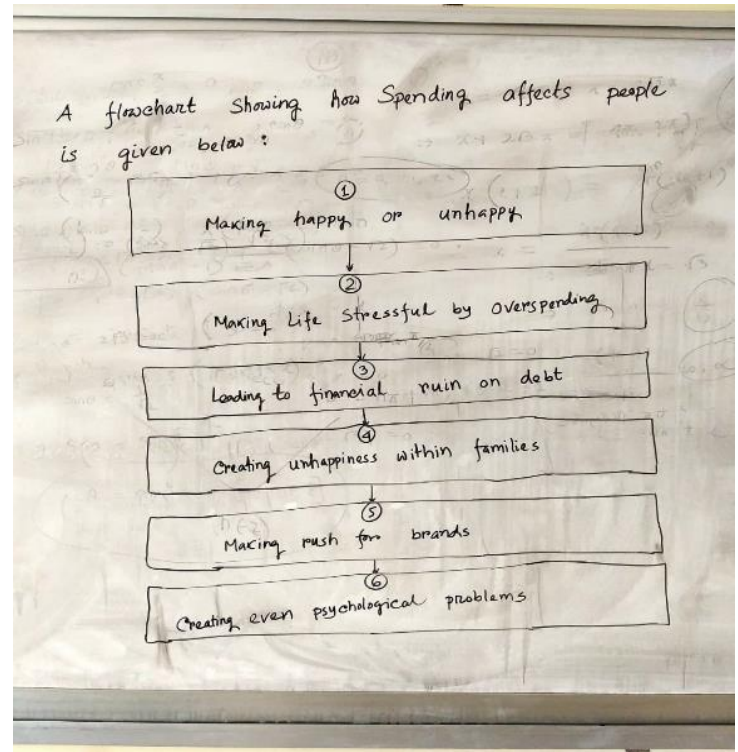


Figure-3

4.1.3 Use of AI and Digital Tools:

The use of digital and AI tools was not observed in the classes. There was a smart TV and an internet connection (Figure 4), but the teacher did not use these. The only technological use noticed was when the teacher used a mobile to read the text. Students had smartphones but were not allowed to use them during class time. The teacher did not encourage or inform students to use artificial intelligence and/or technology for learning. Although the teacher suggested finding the most repeated proverbs from a model question book, this task can be easily

accomplished with the help of AI and technology; simply give a command to find. These findings contrast sharply with Wei (2023) and Yang and Lin's (2025) research findings that AI tools CHATGPT, DINGTALK, and Google Translate are increasingly integrated into classroom practices. A recent study in rural Bangladeshi colleges highlights the potential benefits of digital technology which remains underused due to challenges such as lack of devices, unstable internet connectivity, and insufficient training for teachers (Das, 2024). This situation is consistent with Sultana (2022) and Karim et al. (2021) findings that, despite the availability of digital resources in many Bangladeshi institutions, teachers often lack the training or awareness to use them effectively. Similarly, it is found that although Bangladeshi (university) students perceive AI tools as helpful in developing English writing skills, their effective use in classroom practice remains limited due to lack of structured teacher support (Khan et al., 2024).



Figure-4

The absence of AI tools supports findings from Bangladesh. Sultana (2022) highlighted the infrastructure limitations and lack of digital literacy among educators, especially in rural contexts. Highlighting the gap between available technology and its use in class.

4.1.4 Student Engagement and Interaction:

Students actively participated in discussions where the flexible use of languages allows interactive communication, fostering an inclusive classroom environment. Students sometimes used gestures (mostly nodding heads) and tone to express their thoughts. No peer collaboration and group work were observed. During the discovery of vocabulary meanings, students shared their interpretations based on real-life experiences, which helped them understand how personal and cultural knowledge benefits their learning process. For example, when the teacher asked students to explain 'constrained', a student responded with 'অস্বাধীনতা', though there is no word like this in Bangla, using their life context to understand the term. The teacher also celebrated students' participation and corrected that later, in other words, the teacher promoted mixed language usage for learning. This translanguaging pedagogy creates a noticeable difference for the learners to give “comfort, enhance engagement and improve accessibility to complicated English text” (Rafi and Morgan, 2022). This reflects the sociocultural grounding of language learning as proposed in translanguaging pedagogy (García & Wei, 2014).

The observations support Li's (2011, 2018) concept of the 'translanguaging space', where students use complete linguistic and cultural resources in the classroom. The fluid use of multiple languages to negotiate meaning aligns with García and Wei's (2014) statement that translanguaging fosters inclusive and meaningful education. The use of local dialects and English confronts the value of this pedagogy approach in these settings.

Moreover, the limited use of multi/transmodality supports Tai and Li's (2021) and Kress and van Leeuwen's (2001) studies and findings, partially on multimodal learning. While the teacher used gestures, tone, and visuals, the real potential of transmodal approaches remained neglected.

In contrast, the absence of AI tools reveals a gap between local practice and international practices. For instance, Ng et al. (2021) and Tseng and Warschauer (2023) in their research emphasized the importance of AI literacy in the modern classroom and how this fosters critical thinking and autonomy. This difference reveals the need for targeted training and infrastructural support to create a bridge between policy and practice.

The classroom observations demonstrate a vibrant use of translanguaging and limited but present multi/transmodality strategies for meaning-making, and the absence of AI use highlights the importance of introducing a contextually responsive approach that includes these elements in teaching.

4.2. Pre-Intervention Teacher Interview

4.2.1 Background and Teaching Practice

A semi-structured interview was conducted with an English teacher before the intervention to understand the present pedagogical practices in a rural English language classroom. The interview examined classroom strategies, policy understanding, and perceptions of translanguaging, transmodality, and AI integration.

The teacher described their teaching approach as textbook-oriented. Primarily focusing on reading comprehension and grammar (Figure 1), which reflects the influence of the Grammar

Translation Method, the lessons are designed to help students perform well in high-stakes board exams. Also, encouraging students to use guidebooks at home. This approach echoes Awal's (2023) observation that secondary-level English instruction in Bangladesh largely ignores communicative functions and instead prioritizes translation and exam preparation. However, the curriculum goal is to introduce communicative English learning. The teacher's statement, ' শিক্ষার্থীরা বইও খুলে দেখে না ওরা শুধু গাইডবই থেকে আনসারগুলো মুখস্ত করে। (students do not even open the textbook, they just memorize the answers from guidebooks,)' highlights the exam-driven nature of language education. Ignoring the purpose of the ELT textbook, and focusing predominantly on reading and writing skills, simply ignoring their learning and speaking abilities" (Awal,2023), indicates a lack of real-world communication focus.

4.2.2 Language Policy and Translanguaging

The selected college authorities and teachers encourage the use of English as the primary medium of instruction in English classes. That contrasts with the policy outlined by the Ministry of Education in 2020, which advocates for a bilingual approach. Karim et al. (2021) mentioned that it integrates Bangla and English to enhance learners' communicative and cognitive skills. However, the teacher here highlighted the gap between policy and practical application. According to the teacher, students come from rural and often disadvantaged backgrounds. For that reason, the exposure to English is limited. As a result, the teacher had to use both English and Bangla during the class and allowed students to do the same. For justification, stating that ' আমি যদি ক্লাসের শুরুতে পুরোপুরি ইংলিশ ব্যবহার করি, তাহলে ওরা কিছু বুঝতে পারে না.... মনযোগ হারিয়ে ফেলে।(If I start the class fully in English, they do not understand anything... they lose interest)' underlines the necessity of translanguaging to ensure learner engagement.

Also mentioned that, ‘ আমি যখন বাংলা আর ইংলিশ একসাথে ব্যবহার করি ওরা তখন পড়া সহজে বুঝে আর ক্লাসে মনযোগ দেয়। (When I use both Bangla and English they understand the lesson easily and give attention to the class). These extracts from the interview support the study findings of Sultana and Bolander's (2021) assertion that, despite the policy push, translanguaging is mainly used out of necessity. However, the educators lacked a formal understanding of it.

Interestingly, the teacher was not knowledgeable about translanguaging. As the teacher said, ‘আমার এই থিওরী নিয়ে কোনো ধারণা নেই, আমি এই প্রথম শুনছি. (I have no idea about this theory (translanguaging), I am hearing this for the first time.), Nevertheless, his/her description of practice, using English alongside Bangla and local dialect, demonstrates a translanguaging pedagogy in action. Aligning with García and Wei's (2014) perspective that translanguaging creates a space for meaning-making and promotes linguistic identity, though the teachers and students do not consciously recognize the strategy.

However, the teacher saw a challenge that over-reliance on Bangla could hinder English language learning. Reflecting the tensions between maintaining linguistic heritage and meeting global communicative demands (Hamid & Rahman, 2019). The teacher commented that, 'If they always rely on Bangla, then they do not end up learning English,' reveals the internal conflict of many teachers in balancing policy implementation, students' needs, and perceived expectations.

4.2.3 Use of Multimodal and Transmodal Strategies

The teacher sometimes uses images, gestures, and facial expressions to enhance comprehension. Also acknowledge the values of peer and group work as s/he noticed in the textbook activities, but has not implemented these strategies in the classroom, and mentioned

further that s/he hopes to use these practices in the future. This minimal integration of multimodal and/or transmodal practices shows broader trends in Bangladesh. Where limited logistical support and a lack of proper training opportunities prevent innovation (García & Li, 2014). Though smart TVs and internet access are available in the classroom, the teacher rarely uses them in teaching. Mentioned that ' আমি কখনও টিভি ইউজ করেনি পড়ানোর জন্য কিন্তু আমার মনে হয় এইটা হেল্পফুল হবে আমার শিক্ষার্থীদের জন্য। (Never tried to use the TV, but I think that will be helpful for my students)'. Further acknowledging that ' বই না পড়েও ওরা কী বুঝেছে ঐটা সহজে বলতে পারবে (students can express what they have understood without reading from the book)'; when visuals are used, it confirms the value of multimodality. However, previous studies indicate that the lack of professional development remains a key barrier to implementing these practices. According to Karim et al. (2021), without proper training, even when tools are available, teachers struggle to incorporate different modes (multi/transmodal) and interactive strategies effectively.

4.2.4 AI Literacy and Digital Tools

The teacher shared that s/he and their students occasionally use Google Translate, an online dictionary, and sometimes ChatGPT, but only outside the classroom. The teacher reported that, ' ওরা এইগুলোর সঠিক ব্যবহারটা করে না। কপি করে দেয় না পড়েই। (students misuse these tools by just copying content without engaging in the learning process)'. That reflects the global concerns about plagiarism and shallow learning. AI tools are used uncritically. The teacher mentioned that 'AI tools can support language learning if used responsibly'. This aligns with previous studies advocating for guided and ethical AI use in education.

In this connection, the teacher's stance is similar to the growing recognition that AI tools should be used with appropriate guidance. This supports previous studies that developing AI literacy among teachers and learners is essential for preventing misuse and for meaningful engagement with technology.

The findings of the teacher's interview bring attention to the gap between institutional expectations and classroom realities. There is encouragement to use English as the medium of instruction. The teacher emphasized that students' low proficiency and anxiety towards English made it difficult to follow only the English medium of instruction. The teachers also reported that ‘ শুধুমাত্র বাংলা মাধ্যম শিক্ষাদানও ইংরেজি শেখার ক্ষেত্রে বাধা সৃষ্টি করছে। বাংলা এবং ইংরেজি উভয় ভাষা ব্যবহার তাদের শেখার জন্য সহজ (only the Bangla medium of instruction is also hindering English learning. Using both Bangla and English is easy for their learning.).’ Demonstrating the natural adaptation of translanguaging practices. This aligns with Awal (2023), who observed that teachers often conduct lessons in Bangla, neglecting the ELT textbook's communicative goals. Despite not being known or trained in translanguaging, the teacher agreed to using Bangla, English, and mixed languages to enhance understanding, which supports Sultana and Bolander's (2021) view that the limited implementation of translanguaging in the Bangladesh classroom is noticeable because the teachers are not aware of its use and value.

In the classroom, the use of the grammar-translation method and reliance on guidebooks was observed. Karim et al.'s (2021) findings note that although policy promotes bilingual education, Bangladeshi classrooms remained exam-oriented and dominated by Bangla. The limited use of technology and AI tools demonstrates infrastructural and policy-related barriers in

rural areas, despite their availability and familiarity. Students use tools like Google Translate, Duolingo, and ChatGPT at home, but in the classroom, they are restricted from using them. Not utilising the digital advancement of the students. Overall, this intervention reveals that it is essential to implement translanguaging, transmodality, and AI tools ethically according to local context and lived experience.

4.3 Pre-Intervention Focus Group Discussion

Translanguaging as a Natural Learning Strategy

Every student mentioned the importance of using both Bangla and English to support understanding in the classroom. They emphasized that when the teacher uses both languages, lessons become easier for them. One person said, 'We are mainly Bangla-speaking people. In Bangla, we can express our honest thoughts, revealing how translanguaging functions as a natural and essential learning tool. Though not recognised, this practice enhances comprehension and learners' confidence. This aligns with García and Wei's (2014) idea that learners use their complete linguistic repertoire to make meaning, and Ortega's (2020) findings that translanguaging reduces anxiety and encourages participation.

Student Agency and Problem-Solving Strategies

When the students encounter any new English word or face difficulties with any sentence, they adopt a step-by-step strategy. First, they use a dictionary or search online. If they still do not understand them, they ask their friends or the teacher for clarification. A student said, 'I try to understand it using my phone with the help of online dictionaries, ChatGPT, AI translate, or Google. ' Indicates that the learners are not passive recipients; they are active problem-solvers. Also, demonstrate their capacity in meaning-making and how their self-agency

is connected with this approach. This aligns with Yang and Lin (2025), who argue that low-proficiency learners often use translanguaging for generating and clarifying ideas and meanings.

Engagement with AI and Digital Resources

Students reported that they use AI digital modes such as ChatGPT, Google Translate, or Duolingo outside the classroom. For translation, pronunciation, vocabulary building, and sometimes even for future planning, they use these tools. Participant 4 said, 'Once I asked ChatGPT about BCS, and it gave me a clear explanation in both Bangla and English'. These responses confirm that AI tools are part of their richer use of both languages in learning. As suggested by Wei (2023) and Ossa Parra and Proctor (2021), students involve themselves in active cross-checking and metalinguistic analysis, not only unthinkingly relying on AI.

Multimodal and Transmodal Preferences

The students showed interest in visual and auditory materials such as videos, cartoons, movies with subtitles, and pronunciation apps. For instance, one student commented, 'I enjoy learning that way and try to say the words like in a video'. Another student said, 'I listened to cricket commentary and learned new words from there. I like this way because they describe the real situation, allowing me to connect the words more accurately'. These practices demonstrate that students are utilizing various modes and engaging in multisensory learning. Supporting Tai and Li's (2021) study findings that multimodal resources offer alternative ways for comprehension. The use of visual aids, sound, and text demonstrates a form of performative translanguaging, too, where multiple semiotic modes support learning (Li, 2011; Zhu et al., 2020).

Beliefs about Inclusive Learning Practices

All students should ensure that using Bangla, visuals, and AI tools altogether will help them understand the English language better. They mentioned that not all students learn in the same way. So they viewed these combinations as inclusive. One Participant noted that, 'teaching this way makes it easier for us to understand'. This belief resonates with Almahmoud's (2021) emphasis on the inclusive potential of translanguaging and multimodal practices.

Synthesis and Tensions

The focus group findings indicate that students in rural Bangladeshi classrooms are already engaging in translanguaging, AI-supported, and multimodal learning practices, without any institutional guidance. Their fluid use of both Bangla and English for meaning-making strongly aligns with García and Wei's (2014) definition of translanguaging as it recognises one's full linguistic repertoire. They reported that using preferred languages helped them better understand. They can express their thoughts more effectively, which supports Ortega's (2020) study that translanguaging reduces anxiety and boosts learner confidence in contrast to traditional Bangladeshi classroom practices, which still employ the grammar-translation method and fail to acknowledge bilingual strategies as valid pedagogical tools (Awal, 2023).

The uses of AI tools such as ChatGPT, Google Translate, and Duolingo demonstrate their digital resourcefulness. They do not use these tools unthinkingly; they actively utilize them to cross-check meanings and explore vocabulary, pronunciation, and even career-related topics. This reflects Wei's (2023) and Ossa Parra and Proctor's (2021) observation that learners engage critically with AI as part of their learning process. However, such practices are not allowed in the

classroom, highlighting the discrepancy between students' autonomous learning and the traditional, rigid teaching methods they encounter in college.

Students showed a strong preference for visual and auditory resources as helpful tools for learning English. This supports Tai and Li's (2021) view that multimodal input offers rich learning paths, particularly in low-resource settings. Their practices also reflect Zhu et al.'s (2020) concept of a performative translinguaging space, meaning is made through the combination of language and multimodal modes. For instance, one student reported that, 'using Bangla and English together with the help of AI tools made my learning easier.' That supports Almahmoud's (2021) argument, integrating multiple modes and languages supports diverse learner needs.

Overall, these findings expose a significant mismatch between students' learning strategies and current instructional practices. The policy supports bilingual and communicative approaches, but in reality, it remains highly exam-centric and monomodal. In contrast, students are already developing flexible, technology-assisted, and multilingual strategies that reveal a favourable environment for more inclusive and student-centered pedagogies.

4.4 Pedagogical Intervention Reflection

4.4.1 Context and Intention

The pedagogical intervention was designed to examine how a culturally relevant, multimodal English lesson using translinguaging and AI tools could support the students' language learning in a rural Bangladeshi college. The aim was to create an environment where students' linguistic repertoires and cultural identities are respected to improve engagement, comprehension, and expression in English. The topic 'Pohela Boishak' was selected because it

connects with students' lived experience, allowing for translanguaging and transmodality meaning-making. The lesson is intended to empower students through creative expression using both human and AI-generated outputs.

4.4.2 Pedagogical Intervention Design

The intervention was designed to explore how students can express identity, voice, and use critical thinking through the integration of translanguaging, transmodal strategies, and AI tools, aimed to show an alternative to the traditional, grammar-focused instruction by creating an inclusive space with flexible ways of meaning-making and learner agency.

Began with a brief introduction of the key concepts using local dialects, Bangla, and English, with relatable examples to ensure understanding of these concepts for the teacher and students. To demonstrate the practical implementation of these practices, designed an activity for them. A culturally relevant topic, *Pohela Boishak*, was selected to activate students' minds, knowledge, and to ensure personal engagement. Students are allowed to use their comfortable languages as an example of translanguaging. They brainstormed ideas in Bangla, which helped to scaffold their thinking and connect their experience to the task. Utilizing ChatGPT for generating outlines, paragraph design, and support planning enhances paragraph writing in Bangla. This approach allows them to think and process ideas in their preferred language. Emphasis was placed on their real-life experiences and meaning rather than language accuracy.

After following the independent writing, students compare their paragraphs with AI-generated text, critically reflecting on authenticity, expression, and voice. The intervention also contrasts AI-generated images with their given prompts. That helps them think critically and understand how meaning can change according to modes.

The intervention concluded with students' reflections. Highlighting the relevance and effectiveness of the implemented approach. The intervention demonstrates how translanguaging, multimodal practices, and AI tools can together support culturally relevant, student-centric language learning grounded in a real-life cultural context.

4.4.3 Enacting the Pedagogical Intervention

The intervention reveals key insights into how translanguaging, transmodality, and AI tools enabled learners to engage in an inclusive and effective learning environment (García & Li, 2014; Li & García, 2022; Wei, 2018; Barrett & Pack, 2023). A PowerPoint slide was used to conduct the intervention. At the beginning of the slides, there were the definitions of the key theories with visual aids (figures 5 & 6). Initially, the students showed limited understanding of the concepts when the medium of instruction was solely English. However, when the concept was explained through a combination of English and Bangla instruction, students comprehended the concepts easily. Their responses become more engaged and meaningful. This aligns with García and Wei's (2014) concept of translanguaging as a sense-making process that utilizes learners' full linguistic practices.

The visual elements, such as images in Figures 5 and 6, helped the students with meaning-making. These multimodal supports align with Kress's (2010) arguments that meaning-making becomes easy beyond verbal language into visual and spatial representations. The learners grasped the content more easily by combining language with images. Further, these practices allowed them to connect their prior knowledge with the content.

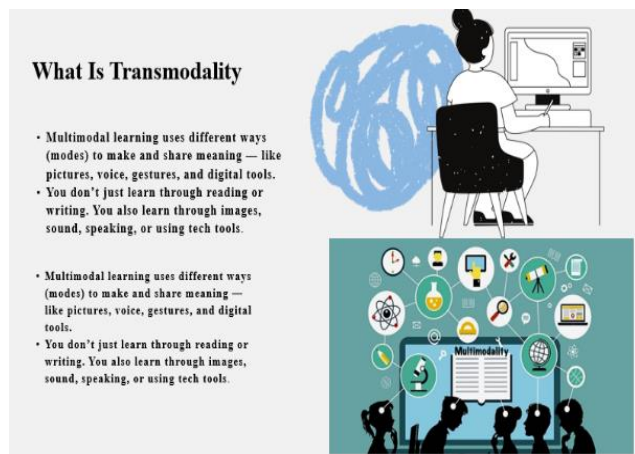


Figure-5



Figure-6

The topic of *Pohela Boishak* ensures cultural relevance in the intervention as it connects with their prior knowledge and real-life experience. Students were encouraged to share their experiences of how they celebrate Pohela Boishak, using Bangla, English, and/or mixed forms, as the key focus of the intervention was to promote learners' full linguistic repertoire. This flexible choice of language increased participation and enjoyment, suggesting that identity expression is closely intertwined with linguistic freedom.

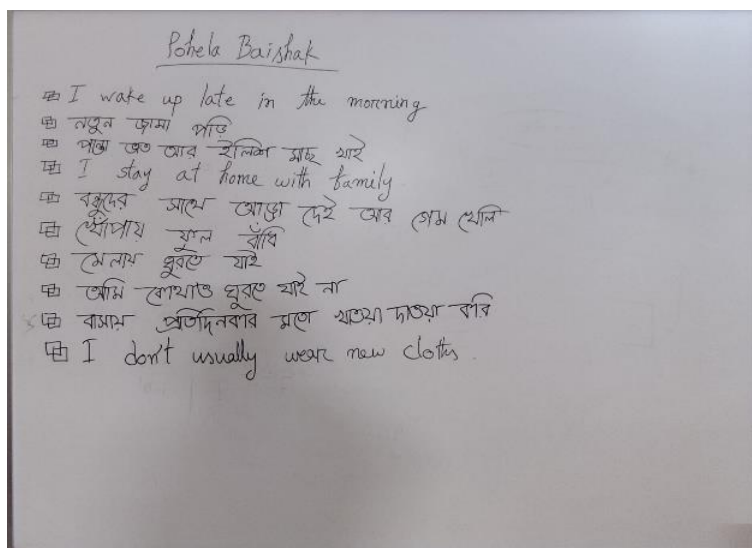


Figure-7

Pohela Boishakh is one of the most important cultural festivals in Bangladesh. It marks the first day of the Bengali New Year and is celebrated every year on April 14. On this day, people wear traditional clothes, join colorful processions, and enjoy traditional foods. Shopkeepers open new account books called *hal khata* and exchange greetings with customers. Pohela Boishakh promotes unity and joy among people of all communities.

Figure-8

Students noticed that AI text is structurally and grammatically correct, but they find differences with their personal voice and cultural relevance. For instance, many students shared their experiences of celebrating Pohela Boishakh (figure 7), highlighting the discrepancy between their individual accounts and the AI-generated paragraph (figure 8). Further, that creates a situation for critical discussions around authenticity and representation.

Finally, the AI-generated paragraph turned into an image (figure 9), which further allowed the students to analyze more critically the provided content of artificial intelligence. Also, it will enable them to examine how meanings can shift across modes.

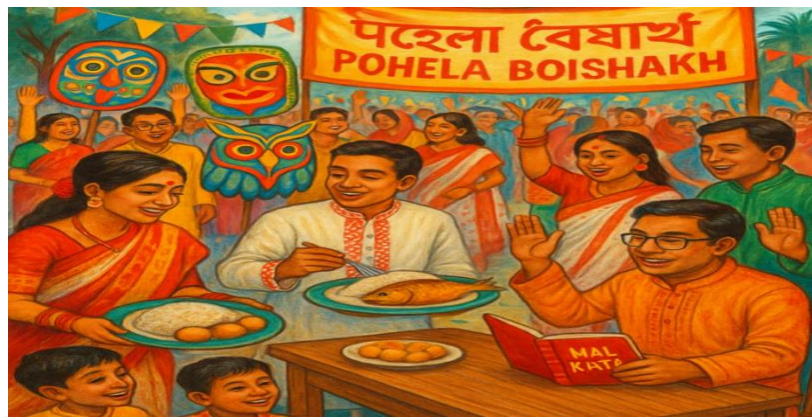


Figure- 9

In sum, this intervention highlights how integration of translanguaging with transmodality and AI, and considering learners' critical thinking, identity, and cultural context (Rafi, 2023; Rafi & Morgan, 2022) can support inclusive, culturally responsive language learning, moreover, developing critical thinking and expressive confidence in learners.

4.4.4 Comparative Literature Analysis

The outcomes of the intervention align with several scholars' studies and findings. García and Kleifgen (2020) argue that translanguaging supports both comprehension and identity expression, evident in this intervention. Rafi and Morgan (2021) and Rafi (2022) asserted that using translanguaging (L1) reduces anxiety and increases participation; students' engagement improved when they used both Bangla and English, affirming the scholar's point. Use of visual aids and multimodal tools aligns with Tai and Li's (2021) emphasis on transmodal strategies that help learners to make meaning, especially in under-resourced contexts. Students reported that they understand and remember ideas more clearly when they or the teacher use images, which reinforces Li's (2011) concept of translanguaging space, where language and semiotic modes come together for meaning making.

The AI-generated paragraph was well structured and free of grammatical errors. However, it failed to provide culturally relevant content. The findings of Yang and Lin (2025), who indicated the need for critical engagement with AI outputs, can be a solution to this lack. In other words, AI is most effective when learners' metalinguistic awareness and guided use are paired together. Cometh and García (2019) similarly suggest integrating machine translation within translanguaging-guided pedagogy to ensure cultural relevance.

The gap between AI-generated content and students' real cultural practices shows that the technology cannot capture local knowledge and/or lived experience. In this modern era of globalization, technological knowledge and skills are essential. Language learning becomes easier and more practical. However, most AI tools are created in Western countries and use data from those regions, so they often do not match the culture or needs of students in the Global

South. To make AI more useful in rural Bangladeshi classrooms, it is essential to include local content and perspectives." Translanguaging can play an important role here. Integrating translanguaging in EFL settings helps learners to comprehend, connect ideas, and express identity, while enabling students to engage with AI tools critically. As Rafi and Morgan (2022) and Rafi (2023) suggest, translanguaging supports both content learning and bilingual identity, though practical and ideological barriers remain in its classroom application.

The findings highlight essential teaching implications and practices. Using these concepts practically can make the English classroom more inclusive and engaging, especially when lessons connect to students' experiences and culture. These approaches will eventually improve understanding, motivation, and student voice. However, successful implementation depends on teacher training and the availability of digital tools. AI can support learning, but it can not replace the role of teachers, cultural awareness, and/or guided instruction. Overall, using these approaches in rural classrooms is both possible and essential for better language teaching and learning. The findings support the research goals and show that integrating these concepts- translanguaging, multimodal strategies, and AI is not only practical but also urgently needed in rural education

4.5 Post-Intervention Teacher Interview

4.5.1 Background and Immediate Reflections

After the pedagogical intervention, a semi-structured interview was conducted with the same English teacher to harness their reflections on the use of translanguaging, transmodality, and AI-based learning in his/her rural Bangladeshi college classroom; he/she followed the intervention from the beginning. The teacher expressed that her perception of these practices

sparked positive interest, describing them as time-saving, student-friendly, and effective for delivering content.

The teacher noted that traditional textbook-based lessons are not practical, as many students lack access to or do not bring their textbooks, which hinders their engagement. In contrast, the intervention, which involved visual aids, culturally relevant topics, and AI support, allowed more engaging, interactive, and effective comprehension. The teacher stated, 'I can show my students the whole thing in one phrase,' highlighting how these strategies made teaching easier, contextual, diverse, and less time-consuming. García and Kleifgen (2020) also suggest the same in their study, that translanguaging allows learners to draw from their full linguistic and semiotic repertoire for more efficient learning.

4.5.2 Changes in Language Use and Translanguaging Perception

The intervention recognised the use of Bangla, English, and local dialects in the classroom as the teacher allowed flexibility in language use, but did not recognize that before. According to the teacher, this kind of environment will boost student comfort and engagement. She observed that those who were previously shy were now asking questions and expressing themselves when allowed to use Bangla, English, local dialects, or a mix of languages.

The teacher was not familiar with translanguaging, but after the intervention, the teacher said, 'After knowing about this concept, I think it is a beneficial and effective strategy for teaching.' Showing a positive attitude. This statement of the teacher supports Sultana and Bolander's (2021) findings that the limited adoption of translanguaging in Bangladesh is often due to a lack of awareness rather than resistance. The teacher reported that, 'when they are allowed to use Bangla, we can clearly understand what the students are trying to say. They often

encounter expressions that cannot be fully conveyed in English, the way they can in Bangla, and can not be expressed in English alone. This confirms García and Wei's (2014) view that translanguaging enhances expression and promotes emotional engagement.

Furthermore, the teacher expressed a challenge. H/she stated that ‘ using Bangla very much will not allow the students to become familiar with English’. This tension reflects the ideological and practical challenge Rafi (2023) identifies, balancing the cognitive support of L1 with the need for English language development in a globalised world.

4.5.3 Transmodal Strategies and Classroom Response

The teacher found that multimodal elements and digital content significantly improved student engagement. S/he mentioned that students responded enthusiastically to visuals and interactive materials. Describing them as 'curious' and 'excited' by the integration of these tools. S/he also shared an analogy: reading may feel boring, but watching the duplicate content in video or movie format can make learning more enjoyable, natural, and memorable.

This positive response of the teacher supports Tai and Li's (2021) observation that using transmodal strategies can make classroom content more accessible and interactive. In this rural and under-resourced context, utilising different types of modes and digital tools together helps students to overcome linguistic barriers. For instance, the teacher observed how the students retained content subconsciously from visual input, which gravitated to the semiotic potential of transmodality discussed by Zheng and Drybrough (2023) in their study.

The teacher also noticed that the use of body language and gesture helped to clarify the meaning, reinforcing the idea that language includes more than words. These findings of the teacher align with Vogel et al. (2018), who bring attention to the values of integrating semiotic

resources in multilingual (bilingual) classrooms. That kind of practice helps to create a performative translinguaging space, where students are allowed to use multimodal resources to co-construct meaning and express identity.

4.5.4 AI Tools and Caution

The teacher agreed that using AI tools such as Google Translate, ChatGPT, and AI translators can be powerful learning tools, especially in rural contexts. H/She observed that students understand the lesson better when abstract concepts are shown through images and further mentioned that ChatGPT can help to create understanding of lessons, and Google Translate can support bilingual comprehension. This aligns with Yang and Lin's (2025) findings; if students can use AI with metalinguistic awareness, it will enhance their autonomy and learning outcomes.

However, the teacher also highlighted some concerns about artificial intelligence. S/he reported that over-reliance on AI can demotivate students for English language learning. They will duplicate the content without understanding, which will hinder not only their language acquisition but also their natural way of learning. This echoes the concerns of Ossara Parra and Proctor (2021), who argue that AI should be used as a supplement, rather than replacing critical thinking and teacher guidance.

Despite these drawbacks, the teacher strongly believes that AI is a valuable support tool, not a replacement for teachers. The teacher said that, 'it saves instruction time and offers a personalized way of learning. I believe it will be beneficial for our students, as many of them come from underprivileged backgrounds. I think it will allow them to learn English without paying the course fees.' This statement supports Barrett and Pack's (2023) research findings that

teachers saw AI as a helpful resource, mainly for brainstorming, checking, and idea generation. Further, s/he emphasized that AI can create a balance between classroom instruction and real-world needs.

4.5.5 Challenges and Structural Limitations

The teacher identified structural challenges, while the intervention revealed many benefits. The teacher noted that, in reality, rural colleges often lack the necessary internet connection, hardware, and institutional support to implement these learning strategies fully. Further shared his/her observation that many teachers, mostly senior ones, are not trained or confident in using these concepts practically. The teachers are hesitant to inquire about new teaching methods or do not attempt to find out, instead preferring to follow traditional methods. They show rigidity because they do not have professional training. This aligns with Karim et al. (2021) 's arguments that, despite policy-level support, limited infrastructure and teacher training obstruct practical innovation.

In addition, the teacher said that ‘mobile phones are common, students often use them for entertainment purposes rather than studying’. Described students' limited motivation to use digital devices for academic purposes. Highlighting the need for greater awareness, training, and proper guidance both for students and teachers to implement technology and AI tools meaningfully into pedagogy.

4.5.6 Comparative Literature Analysis

The findings of the post-intervention affirm the central arguments of existing literature and also offer new context-specific insights from a rural perspective. The teacher's recognition of translanguaging and transmodality in teaching and learning as practical and time-saving

strategies supports García and Wei's (2014) idea that these strategies promote comprehension and lower the anxiety in language learning. His/her observation that students participate very actively when both Bangla and English are allowed, which also reflects Almahmoud's (2021) research, translanguaging allows the learners to ensure their own identity and culture.

The teacher's positive attitude toward using visual aids, gesture, and digital tools aligns with Tai and Li's (2021) and Vogel et al.'s (2018), who highlighted the importance of transmodal strategies that include different semiotic modes in language teaching. The AI use in the rural classroom supports Yang and Lin's (2025) research findings, who observed that students can engage critically with AI when they are allowed for translanguaging and supported by teacher guidance. Nevertheless, the teacher highlighted its value further, that 'it can support lesson planning and classroom management, AI is beneficial for the teachers also, it helps to reduce the pressure and give more time for helping the students according to their needs.' Many studies have been conducted on the benefits of translanguaging and AI, mostly observing the students' aspects, but the combined use of these concepts from a teacher's point of view is less explored.

Notably, the teacher highlights the usefulness of AI tools like ChatGPT and Google Translate. AI tools cannot fully show students' cultural backgrounds or personal feelings. This shows why using local languages and visual aids along with AI is essential to make learning more engaging, inclusive, and meaningful. Rafi and Morgan (2022) believe that English teaching in Bangladesh should include the use of students' first language and be connected to their real-life experiences. These findings support that idea. The teacher's experience in a rural classroom also gives new and practical insights into this scholarship. It indicates that more support is needed in underprivileged areas to implement these methods effectively.

4.6 Post-Intervention Focus Group Discussion

4.6.1 Context and Purpose

A focus group discussion was conducted with previously participating students after the post-intervention to gather their reflections on the use of translanguaging, transmodal strategies, and AI tools in the classroom. The focus of that session was to understand how these practices affect their comprehension, voice, and perceptions of cultural relevance. The responses revealed that multimodal and bilingual classrooms are more engaging and easier to follow. These findings offer important insights about the practical implications of these approaches in an under-resourced rural context.

4.6.2 Enhanced Understanding through Translanguaging

Students reported that using both Bangla and English made the lesson easy and interactive. One student noted that, 'If both Bangla and English are used together, we can easily understand the meaning..... In this way, we can learn quickly and express our ideas more effectively.' Others emphasized that this flexibility in language use allows them to ask questions and remember vocabulary by linking English words with Bangla meanings. These reflections align with García and Li's (2014) theoretical framework that translanguaging supports comprehension and creates a sense of emotional support to use their entire linguistic repertoire. The post-intervention findings align with existing literature in many ways. Students' participation during bilingual sessions supports García and Kleifgen's (2020) findings that learners thrive when they are allowed to use their full linguistic ability. The enthusiastic responses to visual and multimodal content align with Tai and Li's (2021) view that transmodality increases accessibility and engagement.

The students' experiences also affirm Aahmoud's (2021) research that translanguaging is a pathway to identity expression. Many students mentioned that they can express their thoughts easily in Bangla. Conveying them in English is difficult for them. Defining that translanguaging is not only a linguistic strategy, but rather it is a profoundly personal and cognitive process that creates learner agency and inclusion.

4.6.3 Visuals, Audio, and Multimodal Impact

Students mentioned the effectiveness of visual, audio, and interactive elements used in the intervention. One participant reported that, 'I find videos very helpful.....I enjoy learning that way and try to say the words like they do in the video.' Another mentioned that subtitles help to learn vocabulary and develop pronunciation. These insights support Vogel et al.'s (2018) and Tai and Li's (2021) findings, which suggest that transmodal learning facilitates language acquisition through semiotic resources. The students' responses demonstrated that using visual aids helped them understand better, made learning easier for those with low English skills, and reduced the reliance on textbooks. For instance participant 6 said that ‘যখন ঐ সংজ্ঞা গুলার সাথে ছবি গুলো অ্যাড করে বলছেন তখন আমি ওই গুলো ঠিক মত বুঝতে পারছি (When you add pictures to those definitions, I understand them clearly)’. Here, the participant refers to the intervention figures 5 and 6, supporting that images of the slide help the students to grasp the content easily. Multimodality can bridge the gap between limited English proficiency and textual overload.

Some students said that watching videos helps them remember things more easily. This supports Zheng and Drybrough's (2023) idea that using different modes, like visuals, helps students understand and remember better. This is particularly important in rural areas, where

students have limited resources, few opportunities for learning support, and limited exposure to authentic English language input.

4.6.4 Opportunities and Limitations of AI Tools

During the intervention, students are introduced to AI tools, specifically ChatGPT. Most students found this tool helpful for organising paragraph prompts, structuring, and generating responses in Bangla. One noted, ‘If I write in Bangla, it understands my command, even gives English output’. Others also shared that AI helped them find new vocabulary, and the meaning of that word also promotes learners’ self-agency. These responses support Yang and Lin’s (2025) findings that AI can assist students in developing their language skills and encourage autonomy when used alongside metalinguistic awareness.

However, students also critically examined the cultural relevance and personal accuracy of AI-generated outputs. Several students reported that ChatGPT’s responses about Pohela Boishak did not showcase their real-life experiences. For example, do not wear new/ traditional clothes or join Mongol Shovajatra as the AI described. Figure 7 revealed a limitation in generative AI. AI tools are unable to create content that accurately reflects local culture or context, particularly in the Global South. This supports Moore et al.’s (2016) view that AI can help with learning but should not be treated as a one-size-fits-all solution. Some students also said that AI helps students understand general ideas, but it cannot express their personal experiences. Their feedback shows that AI should be used with proper guidance and with the support of translanguaging to work well in rural and bilingual classrooms. This area is still not fully explored in current research. Yang and Lin (2025) praised AI tools for helping with writing and translation. However, students in this study said AI cannot reflect their real-life experiences

or local culture. These findings show that teaching methods must go beyond just using new tools. They must also connect with students' lives and culture, especially in rural Bangladeshi classrooms.

4.6.5 Cultural Representations and Identity

The role of translanguaging and multimodal tools in expressing students' identities is a significant theme of the intervention. Students find many differences when they compare their prompts (Figure 7) to AI-generated descriptions of Pohela Boishak (Figure 8). All students stated that AI content does not feel personal, but rather that it is more generic. One student said, 'It describes a general version of the celebration. We do not wake up early, do not eat panta bhaat, and do not go to fairs.' Another added, 'AI shows how Pohela Boishak is celebrated in Bangladesh, but not how I celebrate it or how it is done in my area.' These statements also demonstrate how they use their critical thinking ability. Participant 5 said that ‘ ছবির পোস্টারে যে প অক্ষরটা দিছে ঐটা আমাদের বাংলা অক্ষর না’। (The letter *প* that is used in the poster of the film is not our Bengali letter) referring figure-9. These reflections gravitated towards the arguments by Li (2022) and Paulsrud et al. (2017), highlighting that translanguaging also has a political and cultural perspective. It allows students to express their identities and can criticise the homogenised representation of language and culture. For instance, another student critically examined the figure-9 and (participant 3) said that, ‘ ছবিতে ওরা যেভাবে শাড়ি পড়েছে ঐভাবে আমরা তো পড়ি না। আর ছবিতে হালখাতা কে মালখাতা লিখে দিছে, এইটাও তো ঠিক না’। (We do not wear the way they wear saris in the picture. And in the picture, the Halkhata is written as Malkhata, which is also not right.), emphasizing that they are critically engaging themselves with content and that ignited their self identity further. The use of translanguaging created that space

and made them critically engage with the contents as they are free to share their understanding in their comfortable language. A classroom translanguaging space created through the intervention, according to Li (2011, 2018), is a place where learners use their full linguistic knowledge, multimodal tools, and cultural knowledge to construct meaning and express identity. The discussion also highlights essential contrasts. While many studies emphasize translanguaging as a cognitive aid, Ortega (2020) points out that students also connect with it emotionally, culturally, and through their identity.

These observations suggest that meaningful change needs more than just using new practices in rural contexts; it must connect with students' language, culture, and real-life experiences. The focus group discussion reveals that students are open to new learning methods that feel inclusive and flexible. Translanguaging and using transmodality methods with the use of AI tools helped the learners to express themselves and stay engaged during the lesson, proving that these are not just a mere combination of tools, but helpful, rather essential. The findings also stressed the importance of teacher support and culturally relevant use of technology, demonstrating that technology must serve local needs and can not replace them.

4.4.7 Synthesis of Key Findings

This chapter explores how translanguaging, transmodality, and AI can benefit English learning in a rural context. The findings reveal that current practices are predominantly exam-focused and monotonous. However, both teachers and students are receptive to new teaching and learning strategies that promote flexibility, inclusivity, and cultural responsiveness.

The intervention made the learning more interactive, increased student engagement, and boosted the confidence of the participants. The teacher also noted that these strategies are helpful

and practical, not just theoretically sound. However, lack of training, infrastructure, and policy support remains a key barrier.

Overall, the study shows that meaningful changes are possible if pedagogy reflects learners' languages, cultures, and local needs. Integrating translanguaging, multimodality, and AI with proper support can develop current English language learning situations. These can make English learning more accessible and effective in this specific context.

Chapter 5

Conclusion and Implications

This study explores how the teacher and students from a rural Bangladeshi college welcome the integration of translanguaging, transmodality, and AI tools within a pedagogical intervention in English Language teaching (ELT). The findings of the study demonstrate that the implementation of these approaches can make learning more engaging, accessible, and culturally relevant. The teacher and students' perspectives revealed that these approaches have significant potential to improve comprehension and learners' confidence and identity. Still, the use of these strategies is limited in the rural context.

This research also demonstrates that implementing these methods in a rural context requires professional training, infrastructural support, and context-relevant adaptation. Through the classroom observations, teacher interviews, and focus group discussions, it becomes evident that translanguaging fosters emotional expression and learners' confidence when students are allowed to use their complete repertoire, e.g., local dialects, Bangla, and English fluidly (García and Li, 2014). Transmodal strategies increase interactive engagement and comprehension by enabling learners to learn from visual aids, gestures, and other multimodal modes, particularly for those with limited access to textbooks or previous exposure to English (Rafi and Morgan, 2022). Language alteration also enhances students' participation and reduces anxiety (Ortega, 2020; Almahmoud, 2021)

AI tools such as ChatGPT and Google Translate demonstrated their potential for enhancing lesson support and bilingual comprehension, which allows the teacher and students to use their time effectively according to their needs (Wei, 2023; Ojeda-Ramirez, Ritchie, &

Warschauer, 2024; Yang & Lin, 2025). However, the teacher raises concerns about overreliance that hinders the English language learning of the students. Also, the students critically analyse the lack of cultural and emotional resonance in AI-generated content. This research contributes to ELT by asserting the voices and experiences of rural college teachers and students and promoting a localized teaching approach to create an inclusive and adaptable learning environment. It also demonstrates that meaningful learning can take place in disadvantaged communities by combining technological tools and advanced teaching strategies creatively and appropriately (Long & Magerko, 2020; Ng et al., 2021; Tseng & Warschauer, 2023).

This research challenges the dominant one-size-fits-all pedagogical practices of ELT in the context of rural Bangladesh by emphasizing local realities and the critical thinking ability of the learners. It argues that rural Bangladeshi classrooms are not only passive recipients of innovative and advanced pedagogy but also demonstrate that, with proper support, they can actively adapt to the intervention, making learning possible (Hamid et al., 2023). This study highlights the importance of language, cultural issues, and technology as all of these are interconnected and fundamental in creating effective teaching and learning.

This study offers valuable insights about the integration of translanguaging, transmodality, and artificial intelligence into a rural Bangladeshi college English classroom, but it has some limitations. Firstly, it was conducted in just one classroom with one teacher and six students, a small-scale research, which provides deep insights but may not reflect the full diversity of rural Bangladeshi classrooms. Secondly, the short intervention period limits the ability to observe long-term impacts and attitudes of the learners. Limited internet connection and a lack of advanced devices also restricted the full use of multimodal strategies and AI tools. The translation from Bangla to English may have reduced some nuances in the participants'

expressions. Moreover, the positive feedback received from both students and the teacher is certainly encouraging; however, it may also have limitations .It could be influenced by the excitement for new practices or the novelty of the experience, rather than sustainable pedagogical transformation.

Future research should focus on longer interventions and multiple rural colleges to understand present teaching approaches and challenges. Selecting larger and more varied participant groups can provide more robust data. Long-term studies are needed to examine the sustained impact of translanguaging, transmodality, and artificial intelligence on language learning development, performance, and motivation. Additionally, this would provide a clear picture of the effects and how these approaches can be adapted effectively for under-resourced classrooms. The impact of training programs focused on translanguaging, transmodality, and AI literacy, as well as how teachers adopt and implement these methods after training, to inform policy decisions, also needs research attention.

Despite the limitations, this study makes a significant and effective contribution by offering a rare and first-hand insight into how translanguaging, transmodality, and artificial intelligence can be meaningfully integrated in the rural Bangladeshi context while considering their linguistic ability, voice, cultural relevance, and critical thinking skills and bringing attention to how these approaches enhance engagement, confidence, and inclusive learning in under-resourced rural classrooms (Hamid & Honan, 2012; Sultana, 2014; Roshid & Haider, 2024). Although the findings can provide an evidence-based starting point for reconceptualizing how localized pedagogy can empower teachers and learners in disadvantaged backgrounds (Karim et al., 2021; Rafi & Morgan, 2022; Rafi, 2023). Overall, the findings of the study provide a

foundation for future and broader research and offer guidance for policymakers, educators, and researchers.

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Appendices

Appendix I: Classroom Observation Checklist

Research Focus: Translanguaging, Transmodality, and AI Use in a Rural English Language Classroom

Observer Name:

Date:

Institution:

A. General Information

1. Class Level:
2. Number of Students Present:
3. Duration of Observation:
4. Teacher Identifier (use code):

B. Language Use and Translanguaging

5. Does the teacher use both English and Bangla during instruction? ☐ Yes ☐ No

Notes:

6. Do students or the teacher use Bangla or local dialects to express understanding or ask questions? ☐ Yes ☐ No

Notes:

7. Does the teacher encourage or allow flexible use of Bangla, local dialect, and English for meaning-making? ☐ Yes ☐ No

Notes:

8. Is Bangla used to clarify English content (e.g., instructions, vocabulary, explanations)?
☐ Yes ☐ No

Notes:

9. Do students respond using a mix of Bangla and English (in speech or writing)?
☐ Yes ☐ No

Notes:

10. Does the teacher conduct the whole class in one dominant language? ☐ Yes ☐ No

Notes:

C. Multimodal Strategies (Transmodality)

10. Does the teacher use visual aids (e.g., images, videos, diagrams)? ☐ Yes ☐ No

Notes:

11. Does the teacher use gestures, tone, or facial expressions to aid understanding? ☐ Yes ☐ No

Notes:

12. Do students use drawings, symbols, or non-verbal cues to express ideas? ☐ Yes ☐ No

Notes:

13. Are multiple modes combined in classroom tasks (e.g., reading + drawing, speaking + writing)? ☐ Yes ☐ No

Notes:

D. Use of AI and Digital Tools

14. Are any AI tools used (e.g., Google Translate, ChatGPT, speech-to-text)? ☐ Yes ☐ No

Notes:

15. Does the teacher encourage or discuss the use of digital/AI tools? ☐ Yes ☐ No

Notes:

16. Do students use phones or digital tools for translation, writing, or searching? ☐ Yes ☐ No

Notes:

17. Do AI tools support bilingual understanding or multimodal expression? ☐ Yes ☐ No

Notes:

E. Student Engagement and Interaction

18. Are students actively participating using both languages or multiple modes? ☐ Yes ☐ No

Notes:

19. Does the teacher respond positively when students use local dialects, Bangla, English, or other methods (such as drawing or gestures) to share their ideas? ☐ Yes ☐ No

Notes:

20. Is peer collaboration observed using both languages or with digital support?
☐ Yes ☐ No

Notes:

21. Do students express their opinions, stories, or experiences during the lesson?
☐ Yes ☐ No Notes:

Appendix II: Pre-Intervention Interview Questions for the Teacher

1. How do you usually approach teaching English in this rural college? What strategies or methods do you prefer?

আপনি সাধারণত এই গ্রামীণ কলেজে ইংরেজি শেখানোর জন্য কীভাবে পাঠ পরিচালনা করেন? আপনি কী কী কৌশল বা পদ্ধতি বেশি ব্যবহার করেন?

2. Are there any institutional guidelines or language policies you're expected to follow? How do they shape your classroom practices?

আপনার কি প্রতিষ্ঠান থেকে নির্দিষ্ট কোনো শিক্ষাদান নির্দেশিকা বা ভাষা-সংক্রান্ত নীতি অনুসরণ করতে বলা হয়? এগুলো কীভাবে আপনার শ্রেণিকক্ষে প্রভাব ফেলে?

3. What are your thoughts on students using Bangla or local languages during English lessons? Have you noticed any benefits or challenges?

ইংরেজি ক্লাসে শিক্ষার্থীরা বাংলা বা স্থানীয় ভাষা ব্যবহার করলে আপনি সেটিকে কীভাবে দেখেন? আপনি কি এতে কোনো সুবিধা বা সমস্যা লক্ষ্য করেছেন?

4. Are you familiar with the concept of translanguaging, or (trans) modality? Do you use strategies like mixing languages, visuals, gestures, or peer support to aid understanding?

আপনি কি "translanguaging", "trans-modality" ধারণার সঙ্গে পরিচিত? অথবা আপনি কী ভাষা মিশ্রণ, ছবি, অঙ্গভঙ্গি বা সহপাঠীদের সহযোগিতার মতো পদ্ধতি ব্যবহার করেন বোঝাপড়া সহজ করতে?

5. Have you or your students used any AI tools (e.g., Google Translate, ChatGPT, voice typing) for teaching or learning? If so, what are your views on their benefits or drawbacks?

আপনি বা আপনার শিক্ষার্থীরা কি শেখার বা পড়ানোর জন্য Google Translate, ChatGPT, বা voice typing-এর মতো কোনো কৃত্রিম বুদ্ধিমত্তা (AI) টুল ব্যবহার করেছেন? করলে, আপনি এর উপকারিতা বা সীমাবদ্ধতা সম্পর্কে কী মনে করেন?

6. Have you ever received any professional training or attended any courses related to English language teaching? If yes, what was the focus of that training?

আপনি কি কখনো ইংরেজি ভাষা শিক্ষাদানের ওপর কোনো প্রশিক্ষণ বা কোর্সে অংশগ্রহণ করেছেন? করে থাকলে, সেই প্রশিক্ষণের মূল বিষয়বস্তু কী ছিল?

Appendix III: Pre-Intervention Focus Group Questions (Students)

1. In your English classes, which language does the teacher mostly use—Bangla, English, or both? How does that affect your understanding of the lesson?

ইংরেজি ক্লাসে আপনার শিক্ষক মূলত কোন ভাষা ব্যবহার করেন—বাংলা, ইংরেজি, নাকি দুটোই? এতে আপনার পাঠ বোঝার ওপর কী প্রভাব পড়ে?

2. When you don't understand something in English, what do you usually do to make sense of it? (e.g., ask in Bangla, use examples, translate, use pictures, etc.)

আপনি যখন ইংরেজিতে কিছু বুঝতে পারেন না, তখন সাধারণত কী করেন বোঝার জন্য? (যেমন: বাংলায় জিজ্ঞেস করা, উদাহরণ ব্যবহার করা, অনুবাদ করা, ছবি ব্যবহার করা ইত্যাদি)

3. Have you ever used mobile apps or AI tools like Google Translate, speech-to-text, or ChatGPT to help with English? Can you share an example?

আপনি কি কখনো Google Translate, speech-to-text, বা ChatGPT-এর মতো মোবাইল অ্যাপ বা AI টুল ব্যবহার করেছেন ইংরেজি শেখার জন্য? কোনো উদাহরণ দিতে পারবেন?

4. Besides reading and writing, do you use any other ways to understand English better, like watching videos, using images, drawing, or listening to audio? Which one helps you most?

শুধু পড়া ও লেখা ছাড়াও, আপনি কি ইংরেজি ভালোভাবে বুঝতে অন্য কোনো উপায় ব্যবহার করেন—যেমন ভিডিও দেখা, ছবি ব্যবহার, আঁকা, অডিও শোনা ইত্যাদি? কোনটা আপনার সবচেয়ে বেশি কাজে লাগে?

5. Do you feel that using your language, different modes (like pictures, voice, or video), and technology together can make learning English easier or more meaningful? Why or why not?

আপনি কি মনে করেন যে নিজের ভাষা, বিভিন্ন উপায় (যেমন ছবি, কণ্ঠ বা ভিডিও) এবং প্রযুক্তি একসাথে ব্যবহার করলে ইংরেজি শেখা সহজ বা অর্থবহ হয়ে উঠতে পারে? কেন মনে করেন বা করেন না?

Appendix IV: Post-Intervention Interview Questions for the Teacher

1. After attending the session, has your understanding of translanguaging, transmodality, and their roles in English teaching changed? If so, how?

এই সেশনে অংশ নেওয়ার পর আপনার translanguaging এবং transmodality এবং এগুলোর ইংরেজি শিক্ষায় ভূমিকা সম্পর্কে ধারণা কি কোনোভাবে পরিবর্তিত হয়েছে? হলে কীভাবে?

2. What are your thoughts on using AI tools (like Google Translate or ChatGPT) in English classes, especially when students interact with them in Bangla or combine languages and modes?

আপনি ইংরেজি ক্লাসে AI টুল (যেমন Google Translate বা ChatGPT) ব্যবহারের বিষয়ে কী ভাবেন, বিশেষ করে যখন শিক্ষার্থীরা বাংলা ব্যবহার করে বা ভাষা ও উপস্থাপনার বিভিন্ন মাধ্যম একত্রে ব্যবহার করে?

3. Did you notice any changes in how students responded when they were allowed to use both Bangla and English, as well as visual, verbal, or digital modes? How did this affect their confidence or engagement?

যখন শিক্ষার্থীরা বাংলা ও ইংরেজি পাশাপাশি ভিজুয়াল, মৌখিক বা ডিজিটাল উপায় ব্যবহারের সুযোগ পেয়েছিল, তখন তাদের প্রতিক্রিয়ায় কি কোনো পরিবর্তন লক্ষ্য করেছেন? এতে তাদের আত্মবিশ্বাস বা সক্রিয় অংশগ্রহণে কী প্রভাব পড়েছে?

4. Do you think this approach (mixing languages, utilizing AI, incorporating visuals, gestures, or multiple modes) helps students express their identity, culture, and personal experiences in the English learning context? Why or why not?

আপনি কি মনে করেন এই ধরনের পদ্ধতি (ভাষা মিশ্রণ, AI, ছবি, অঙ্গভঙ্গি বা বিভিন্ন উপস্থাপন পদ্ধতি) শিক্ষার্থীদের ইংরেজি শেখার সময় তাদের পরিচয়, সংস্কৃতি ও ব্যক্তিগত অভিজ্ঞতা প্রকাশে সহায়তা করে? কেন মনে করেন বা করেন না?

5. Based on this experience, what possibilities or challenges do you see in using translanguaging, transmodality, and AI-supported learning in your future classroom practices?

এই অভিজ্ঞতার ভিত্তিতে আপনি ভবিষ্যতের ক্লাসে translanguaging, transmodality এবং AI-ভিত্তিক শেখার ব্যবহার নিয়ে কী কী সম্ভাবনা বা চ্যালেঞ্জ দেখছেন?

Appendix V: Post-Intervention Focus Group Questions (Students)

1. How did you feel when you were allowed to use both Bangla and English during classroom activities? Did it help you express your thoughts more clearly?

ক্লাসের কার্যক্রমে বাংলা ও ইংরেজি একসাথে ব্যবহার করার সুযোগ পেয়ে আপনার কেমন লেগেছে? এতে কি আপনি নিজের ভাবনা সহজে প্রকাশ করতে পেরেছেন?

2. What was your experience using AI tools (like Google Translate or ChatGPT) during the class? Did they understand your input in Bangla? Did the responses feel natural to you?

ক্লাসে Google Translate বা ChatGPT-এর মতো AI টুল ব্যবহার করার অভিজ্ঞতা কেমন ছিল? আপনি বাংলা লিখলে কি সেগুলো বুঝেছে? তাদের উত্তরগুলো কি আপনার কাছে স্বাভাবিক লেগেছে?

3. When you compared your writing with the AI-generated paragraph, what differences did you notice? Which one felt more personal or genuine to your own story?

আপনি যখন নিজের লেখা এবং AI তৈরি করা অনুচ্ছেদ তুলনা করলেন, তখন কী কী পার্থক্য লক্ষ্য করলেন? কোনটা আপনার নিজের গল্প বা অভিজ্ঞতার সঙ্গে বেশি মিলেছিল?

4. How did you feel when your writing was turned into an image or visual? Did it match your idea or experience? Why or why not?

যখন আপনার লেখা ছবি বা ভিজ্যুয়ালে রূপান্তর করা হলো, তখন কেমন অনুভব করেছিলেন? এটি কি আপনার ভাবনা বা অভিজ্ঞতার সঙ্গে মিলেছিল? কেন মিলেছে বা মেলেনি?

5. After this experience, should learning English include Bangla, cultural references, and helpful tools like AI? Why or why not?

এই অভিজ্ঞতার পর আপনি কি মনে করেন, ইংরেজি শেখার সময় বাংলার ব্যবহার, সাংস্কৃতিক প্রসঙ্গ এবং AI-এর মতো টুল থাকা উচিত? কেন থাকা উচিত বা উচিত নয়?

Appendix VI: Pedagogical Intervention Design

Title: *Exploring Pohela Boishakh through Translanguaging, Transmodality, and AI*

Class Duration: 40 minutes

Level: Higher Secondary (Bangla medium)

Context: Rural Government College in Bangladesh

Focus Areas: Translanguaging, Transmodality, and AI in English Language Learning

Intervention Objectives

By the end of the session, students will be able to:

1. Use both Bangla and English (translanguaging) to describe and reflect on cultural celebrations.
2. Express ideas about Pohela Boishakh through bilingual writing.
3. Interact with AI tools (Google Translate, ChatGPT) to compare human vs. AI-generated descriptions.
4. Experience multimodal (transmodal) meaning-making by generating visuals related to Pohela Boishakh.
5. Reflect critically on how language, culture, and technology shape identity and learning.

Materials Needed

- Student notebooks/paper and pens
- Mobile phones with internet access (Google Translate / ChatGPT)
- Laptop with AI image generation tool (optional: pre-printed sample images of Pohela Boishakh)
- Whiteboard and markers

Activity Procedure:

Time	Segment	Focus Area	Activities & Instructions
5 min	Introduction to Translanguaging & Culture	Awareness + Validation	Introduces the idea of translanguaging with examples mixing Bangla and English. Brief discussion of <i>Pohela Boishakh</i> as a cultural theme (keywords written in Bangla + English).
5 min	Oral Sharing: Cultural Experiences	Activating Real Context	Students answer oral questions in Bangla-English mix: “ <i>How do you celebrate Pohela Boishakh?</i> ” Teacher notes responses biligually on the board.
10 min	Writing Task: Pohela Boishakh	Translanguaging Writing	Students write 4–5 sentences about how they or their families celebrate Pohela Boishakh, freely using Bangla + English. Focus is on natural expression, not accuracy.
10 min	AI Interaction + Comparison	AI Literacy + Reflection	Students input a Bangla prompt about Pohela Boishakh into Google Translate/ChatGPT. They compare the AI-generated text with their own bilingual writing. Discussion: Which feels more authentic, personal, or culturally accurate?
5 min	Image Generation Task	Transmodality	AI-generated images of Pohela Boishakh (from text) are shown. Students reflect: “ <i>Does this image represent our celebration?</i> ” Group discussion on the differences between AI’s visual and students’ cultural reality.
5 min	Group Reflection	Critical Thinking + Voice	Student's reflection : How did mixing Bangla and English help expression? Did AI capture cultural identity? Should technology support cultural voice in English learning?

Key Reflection Questions

- How did it feel to use both Bangla and English to write about Pohela Boishakh?
- Did AI understand and represent your cultural ideas clearly? Why or why not?
- Which version (yours or AI’s) felt more personal or authentic?
- Did the AI-generated image reflect your real cultural practices?
- Should English learning include Bangla, culture, and AI tools together?

Expected Learning Outcomes

- Students gain confidence in using translanguaging to express cultural identity.
- Students see translanguaging as a valid classroom practice.
- Students critically compare human vs. AI texts, noticing limitations of AI in cultural representation.
- Students experience how multimodal (visual + verbal) expression can deepen learning.

- Students develop critical awareness of how language, culture, and technology intersect in English learning.
- Students reflect on responsible use of AI, realizing its strengths and cultural blind spots.