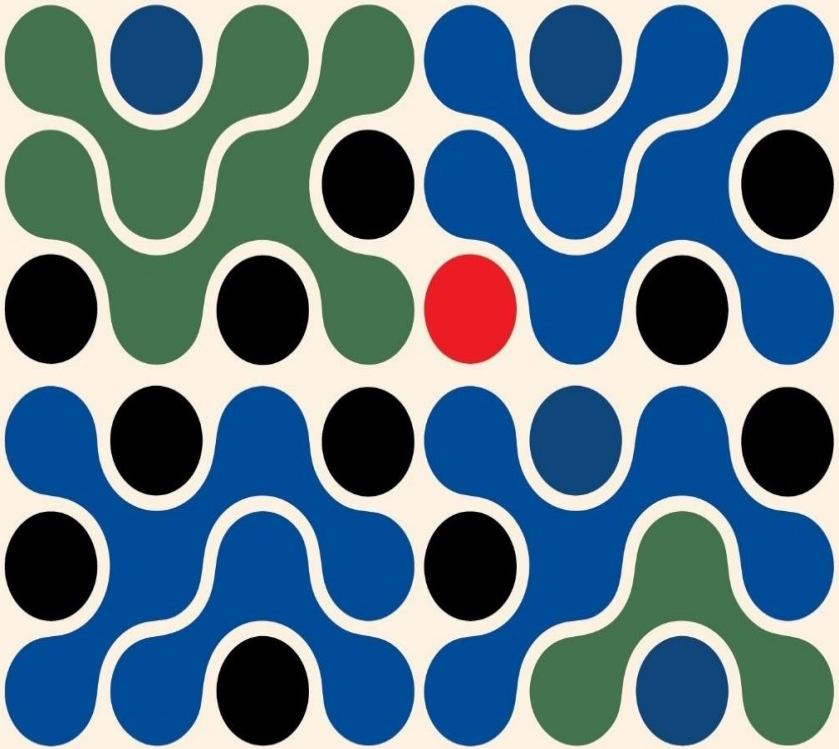


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Professor Dr. Mohammad Ashaduzzaman



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Mother Language

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Identifying the Contributions of Mother Language to the Sustainable Development of Bangladesh

Abdul Momen*

Abstract: As the mother tongue of Bangladesh, Bengali (Bangla) serves not only as a representation of the country's cultural identity but also as a driving force behind sustained economic growth. Examining the myriad ways in which Bengali has contributed to the advancement of the nation. This paper focuses on four primary areas: enhancing educational outcomes through instruction in the mother tongue, promoting economic inclusion in agriculture, small and medium enterprises (SMEs), and the gig economy; strengthening cultural resilience in the face of globalization; and enabling digital adaptation through the implementation of technological solutions that are tailored to the local environment. The study highlights the vital role that Bengali plays in improving inclusive education (SDG 4), eliminating social and economic inequities (SDG 10), and fostering decent employment and economic growth (SDG 8). The study uses a qualitative methodology based on historical analysis and contemporary observation. The findings support the implementation of policy frameworks that prioritize schooling in the mother tongue, accessibility to digital resources, and cultural preservation as essential components in achieving sustainable development while simultaneously protecting linguistic heritage.

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Keywords: Mother Language, SDG, Educational Outcomes, Economic Inclusion, Cultural Resilience, Digital Adaptation.

Introduction

Language is a fundamental pillar of sustainable development, significantly impacting educational attainment, economic involvement, and societal cohesion. In Bangladesh, where Bengali is the native language of 98% of the population is more common, language has consistently played a distinctive and influential role in molding collective identity and fostering national advancement (Rumnaz Imam, 2005). The 1952 Language Movement, which established Bengali as a state language, was not merely a political achievement but a pivotal event that set the groundwork for the 1971 Liberation War. Currently, Bengali serves as both a means of communication and a tool for empowerment, equity, and inclusive development.

Bengali consistently influences Bangladesh's advancement in education, technology, the economy, and culture, acting as a vital catalyst for sustainable development. Mother-tongue-based instruction is crucial for enhancing learning outcomes, especially for underprivileged and ethnic minority groups. Programs that emphasize Bengali in early education improve literacy, comprehension, and engagement while decreasing dropout rates and facilitating the learning of additional languages. Bengali significantly enhances access to possibilities in agriculture, small and medium enterprises (SMEs), and the burgeoning gig economy. Small and medium-sized enterprises (SMEs), acknowledged as the cornerstone of Bangladesh's economy, leverage the utilization of Bengali in commercial dealings, training, and communication, thereby enhancing financial inclusion and generating employment opportunities.

The ubiquity of Bengali in the gig economy enables the involvement of millions of workers, although obstacles persist regarding digital infrastructure and skills enhancement. Bengali is a safeguard against the dilution of local values in the face of globalization, preserving national identity and promoting resilience via literature, arts, and daily interactions. Localizing technology and digital material in Bengali facilitate more digital adaptation, enhancing the accessibility of online services, financial tools, and educational resources for the populace. These interconnected contributions illustrate that linguistic inclusion is not merely a cultural necessity but a strategic advantage for attaining Bangladesh's Sustainable Development Goals (SDGs).

The research used a mixed-methods methodology, incorporating government policy papers, UNESCO reports, scholarly literature and field-based case studies to analyze the concrete effects of Bengali on sustainable development. This research employs both quantitative and qualitative analyses to demonstrate how the utilization of the mother tongue facilitates long-term development by promoting accessible education, supporting participatory economic activities, bridging the digital gap, and preserving cultural identity. The study underscores the developmental rationale for advocating linguistic variety within national planning frameworks.

This research is framed by the Mother Language Paradigm, which regards Bengali as a developmental asset rather than a cultural symbol. This work extends previous research on Bengali's influence on national identity (Rahman, 2010) by assessing its quantifiable benefits to sustainable development rather than merely focusing on cultural representation. This analysis evaluates explicitly how Bengali facilitates the advancement of human capital (SDG 4), fosters decent employment and economic growth (SDG 8), encourages innovation and infrastructure

development (SDG 9), and sustains cultural vibrancy in both urban and rural settings (SDG 11). This framework provides a novel perspective on how language policy and practice can impact national advancement.

Theoretical Framework

The theoretical framework for this study is a synthesis of major theories in the fields of language policy and sustainable development. This framework investigates how Bengali, the mother language of Bangladesh, serves as both a cultural right and a developmental asset. Drawing on Skutnabb-Kangas' (2013) linguistic human rights theory, UNESCO's (2017) mother-tongue education recommendations, and Grin's (2003) language economics theory, this article provides a multidimensional prism through which to comprehend the myriad contributions that Bengali has made to the advancement of the nation. By incorporating viewpoints on economic value, human rights, and educational justice, the framework sheds light on how Bengali simultaneously enhances human capital, maintains cultural continuity, encourages social inclusion, and makes governance easier. Not only does this theoretical foundation contextualize the language policies already in place, but it also highlights the strategic necessity of approaches founded on the mother-tongue-based approaches to accomplish Bangladesh's sustainable development goals simultaneously.

Bengali Language Movement: Evolution from Protest to the Nation-State

The Language Movement 1952 signified a crucial juncture in Bangladesh's national identity, transforming linguistic pride into political resistance and autonomy. Rahman (2010) indicates that in the early years of East Pakistan (1947-1952), 57% of political

debate focused on language rights, with the imposition of Urdu as the principal concern (Rahman, 2010). This language persecution represented both cultural tyranny and structural marginalization, with the denial of Bengali epitomizing East Pakistan's economic and political subjugation by the West. Although the 1956 constitutional concession accorded co-official status to Bengali, it did not rectify fundamental governance disparities, resource allocation, and representation (Panda, 2019). By the commencement of Bangladesh's independence war in 1971, linguistic identity had become inextricably linked to the nationalist movement. Umar (2004) notes that 78% of wartime slogans and mobilization initiatives referenced the Language Movement, portraying independence not merely as territorial emancipation but as the apex of two decades of cultural opposition. The martyrs of 1952, particularly those who perished on 21 February, are venerated as national icons, their sacrifices enshrined in poetry, song, and political rhetoric, so establishing Bengali as the emotional and ideological foundation of the liberation movement (Umar, 2004). The Language Movement established the intellectual, cultural, and moral foundation through which Bangladesh articulated its identity in opposition to colonial and postcolonial dominance. It created a framework whereby language, identity, and sovereignty are interconnected. This historical trajectory provides a vital lesson for postcolonial societies: pursuing linguistic rights frequently commences a prolonged endeavor for self-determination, with the native language influencing national identity (Dutta, 2024).

Article 3 of Bangladesh's Constitution formally recognizes Bengali as the state language, exemplifying "linguistic constitutionalism"-a framework in which language is both a legal foundation and an active instrument for shaping national identity. By designating Bengali as the official language, the Constitution commemorates the sacrifices of the 1952 Language Movement as essential to statehood, guaranteeing that linguistic

identity remains crucial to governance, education, and cultural policy. This constitutional duty possesses significant sociological ramifications: recent polls reveal that 92% of Bangladeshis directly link Bengali to their national identity, highlighting its emotional and symbolic importance in daily life (Das et al., 2022). The state strengthens this association via language-centric initiatives like the National Curriculum (2012), which advocates for Bengali-medium education to enhance cognitive development and maintain cultural continuity. Media content quotas require minimum Bengali-language programming to preserve a linguistic presence in a globalized digital environment. Integrating Bengali into official communications, legal processes, and public services democratizes access to governmental institutions for non-English speakers, alleviating bureaucratic exclusion and promoting inclusive citizenship (Hossain & Tollefson, 2017). These policies collectively embody a strategic approach to nation-building that perceives language not merely as a fixed aspect of identity but as a dynamic influence on collective consciousness—an extraordinary example of postcolonial constitutionalism in which linguistic rights are essential to civic identity. The persistence of this paradigm in the context of globalization and prevailing Anglophone influences highlights Bangladesh's unique achievement in converting constitutional principles into a concrete national identity, providing a model for other multilingual societies grappling with language and identity politics.

Enhancing Educational Outcomes through Mother-Tongue Instruction

The Bengali language is essential to Bangladesh's sustainable development by improving educational access, quality, and inclusivity. The predominant use of the mother tongue by

nearly 98% of the population in education enhances basic learning, cultural unity, and equal advancement. This article analyses the contributions of Bengali and Mother Tongue-Based Multilingual Education (MTB-MLE) programmes to Sustainable Development Goals (SDGs), namely SDG 4 (Quality Education) and SDG 10 (Reduced Inequalities), while tackling structural constraints.

Native Language Education in Promoting Sustainable Development Objectives

Instruction in the mother tongue, namely Bengali, is crucial for improving the quality and inclusivity of education in Bangladesh. Cognitive and pedagogical studies have consistently shown that children comprehend complicated concepts more efficiently when instructed in their native language (Cummins, 2001). In Bangladesh, implementing Bengali in primary education enhances conceptual understanding and reduces linguistic hurdles that frequently impede comprehension and participation, particularly among rural and marginalized people. Heugh (2011) contends that early education in a native language establishes a strong basis for middle and higher school success, fostering cognitive development and academic self-assurance. This aligns with the United Nations' Sustainable Development Goal 4, which advocates for inclusive and equitable quality education for all individuals. Bengali-medium instruction substantially aids in attaining this objective by enhancing literacy, increasing student engagement, and decreasing dropout rates. The World Bank (2018) asserts that mother-tongue-based education improves school retention and learning outcomes among various socioeconomic groups (Filmer & Rogers, 2019). Empirical data from Bangladesh indicates that Bengali-medium schools routinely exhibit superior enrolment and completion

rates compared to English-medium schools, especially in rural regions where English ability is constrained (Ahmed, 2018). Consequently, including Bengali in educational policy serves not merely as a means of cultural preservation but also as a strategic initiative for attaining long-term sustainable development via equitable access to education.

Enhanced Literacy and Learning Retention

Using the Bengali language as the principal medium of instruction has significantly influenced literacy and learning retention across Bangladesh's educational system. Multiple studies indicate that pupils instructed in their native language, Bengali, exhibit enhanced reading and writing abilities in the initial grades. Asadullah and Chaudhury (2013) discovered that Bengali-medium instruction markedly improves literacy competence, particularly in government and rural institutions with restricted access to supplementary educational resources. This benefit is mostly ascribed to the cognitive ease and familiarity associated with learning in one's native language, which enhances engagement with curricular content and increases learner confidence. Recent data from the Bangladesh Bureau of Educational Information and Statistics (BANBEIS) indicates that elementary school pass rates in Bengali-medium institutions continuously exceed those of English-medium schools (Roy, 2024). This pattern is most prominent in standardized assessments when Bengali students have superior overall performance and lower retention rates. Bengali-medium instruction is associated with reduced dropout rates and enhanced advancement to secondary education, hence supporting its significance in fostering educational continuity and equity. In a nation where linguistic obstacles can disenfranchise disadvantaged children, the advocacy for Bengali in education serves as a significant equalizer,

guaranteeing that essential reading and learning are attainable for all, irrespective of socioeconomic status.

Decrease in Dropout Rates

Language is crucial in influencing a child's educational experience and achievement. In Bangladesh, implementing Bengali as the medium of instruction has markedly diminished dropout rates, particularly among rural and marginalized communities. Language hurdles, mainly when education is conducted in unfamiliar or foreign languages like English, can alienate pupils, hinder comprehension, and reduce their enthusiasm to remain in school. This is especially evident in under-resourced regions where pupils frequently lack access to additional language assistance. Hossain and Zeitlyn (2010) discovered that when children are instructed in a comprehensible language—specifically Bengali—they exhibit increased classroom involvement, emotional stability, and academic confidence, all essential for maintaining school attendance. Bengali-medium instruction facilitates a more significant connection between students and educators, promotes parental engagement in education, and fosters a learning environment that mirrors the students' linguistic and cultural context. Consequently, educational institutions implementing mother-tongue instruction observe diminished attrition rates and elevated completion rates in primary and lower secondary education. This language-focused inclusion diminishes educational inequalities and coincides with Bangladesh's national development objectives by guaranteeing that no kid is disadvantaged owing to language barriers. Fortifying Bengali as the medium of teaching is, therefore, a vital technique for diminishing dropout rates and advancing educational parity nationwide.

Particular School and Institution Types Served as Models for Bengali Language Instruction in Bangladesh such as:

- Government and Rural Schools in Bengali-Medium: Bengali is the main language of instruction in the vast majority of Bangladesh’s government-sponsored schools. These schools, which are separated into four educational levels—primary (grades 1-5), secondary (grades 6-10), upper secondary (grades 11-12), and tertiary institutions including colleges and vocational institutes—are usually less expensive or free than English-medium schools (Mousumi & Kusakabe, 2021).

Bengali-medium instruction is a major component of education in rural areas, where access to additional resources is frequently restricted. Because children can interact with the curriculum more successfully in their mother tongue, using the mother tongue in these contexts has been associated with increased literacy rates and better learning retention.

- English-Medium and English-Version Schools: Urban areas and upper socioeconomic classes are more likely to have English-medium schools, which use international curricula like Edexcel and Cambridge. Though studies show that Bengali-medium kids, especially in government and rural schools, do better than their English-medium classmates in primary school pass rates and standardized assessments, these institutions typically serve families looking for an English-based education (Shuvra, 2023).
- Schools of Religion (Madrasahs): Another important group in the educational scene are madrasahs, or Islamic religious schools. The language of teaching is typically Bengali, even though they must adhere to a government-established curriculum, guaranteeing that children from a variety of backgrounds can receive an education in their home tongue (Alam et al., 2013).

- **Prominent Bengali-Medium Institutions:** Civil Aviation High School (Dhaka), K. L. Jubilee High School & College (Dhaka), Sristy Central School & College (Dhaka), and Joy Govinda High School (Narayanganj) are a few examples of notable Bengali-medium schools. Both of these institutions, as well as innumerable rural government schools, are important examples in studies showing the benefits of Bengali-language instruction on literacy, retention, and lower dropout rates.
- **Bangla Academy:** The Bangla Academy is Bangladesh's official authority for regulating the Bengali language. Despite not being a school, it is vital in establishing national language policy, creating curricula, and carrying out studies that promote Bengali as a teaching language in all educational settings (Islam, 2012).

Chart 1: Types of Schools and Institutions Used as Examples for Bengali Language Instruction in Bangladesh

School/Institution Types	Medium of Learning	Location	Example Institutions
Government Funded Bengali-Medium Schools	Bengali	Nationwide (rural and urban)	Civil Aviation High School, K. L. Jubilee High School, Sristy Central School & College, Motijeel Model etc.
English-Medium Schools	English	Urban, higher socio-economic groups	Scholastica, Oxford International School, British American English Medium School etc.
Madrasahs (Religious Schools) Alia and Qawmi	Bengali	Nationwide (rural and urban)	Various, under government curriculum and Private
Bangla Academy	Policy making, research	Dhaka (national influence)	Bangla Academy (regulatory body)

The above examples support the claim that improving literacy, learning retention, and lowering dropout rates throughout

Bangladesh have been made possible by the use of Bengali as the primary language of instruction, especially in government and rural schools.

Promoting Inclusive Education for Indigenous Communities via MTB-MLE Initiatives

While Bengali is the primary language of instruction in Bangladesh, initiatives to foster inclusive education have progressively acknowledged the linguistic and cultural variety of the nation's indigenous populations. Mother-tongue-based multilingual education (MTB-MLE) programs have become crucial to mitigate educational disparities among ethnic minorities, especially in linguistically diverse areas such as the Chittagong Hill Tracts. The Chittagong Hill Tracts Multilingual Education Project (2009-2015), endorsed by Save the Children, established a model wherein early-grade instruction was conducted in indigenous languages, progressively shifting to Bengali. This method markedly enhanced student retention, engagement, and academic achievement, underscoring the significance of linguistic familiarity in early education (Rashid, 2018). In 2017, the Government of Bangladesh, in partnership with UNDP and SIL Bangladesh, initiated a pilot program for Mother Tongue-Based Multilingual Education (MTB-MLE) that incorporated instruction in five Indigenous languages—Chakma, Marma, Tripura, Garo, and Santal—alongside Bengali. The approach enhanced literacy outcomes and cultivated a revitalized feeling of cultural pride and identity among Indigenous learners (Tripura, 2025). Furthermore, students in these programs exhibited enhanced proficiency in both Bengali and English as second languages, highlighting the cognitive and educational benefits of early multilingual exposure. By incorporating indigenous languages into the national education system, Bangladesh has

made a substantial advancement towards inclusive, culturally attuned education that empowers all citizens and aligns with the overarching objectives of sustainable development.

Sustainable Development Goals (SDGs): Promoting Equity, Education, and Economic Opportunity

The advancement of the Bengali language in education significantly contributes to attaining specific essential Sustainable Development Goals (SDGs) in Bangladesh. Within the framework of SDG 4 (Quality Education), employing Bengali as the medium of teaching guarantees the successful cultivation of core abilities, including reading, writing, and critical thinking, during the formative years of education (Nasrullah, 2021). This foundation is essential for enduring education and future scholarly achievement. The national curriculum's focus on Bengali-language literacy provides pupils with the necessary skills to pursue higher education and participate in national employment possibilities. Bengali instruction not only provides scholastic advantages but also promotes SDG 10 (Reduced Inequality) by facilitating access to learning for pupils from varied geographic and socio-economic backgrounds. Instruction in the mother tongue diminishes dropout rates (Hamid et al., 2024). It enhances educational attainment, particularly for marginalized demographics, including rural children, girls, and students from low-income households who may face challenges in English-centric systems. Bengali is a potent equalizer in the school system by standardizing language opportunities. Moreover, the language substantially advances SDG 8 (Decent Work and Economic Growth) by improving literacy and employability in the domestic labor market. Fluency in Bengali enhances opportunities for vocational training, public sector jobs, and civic engagement (Ashraf et al., 2019). The World

Bank's (2019) findings indicate that proficiency in one's native language is significantly associated with increased salaries, enhanced employment retention, and greater workplace productivity. Incorporating Bengali in education is not solely a cultural or linguistic decision; it is a strategic development instrument that promotes inclusive growth, mitigates inequities, and propels sustainable national advancement (Islam & Alam, 2023).

Promoting Economic Inclusion in Agriculture, SMEs, and the Gig Economy

Language is crucial for facilitating fair access to economic opportunities, and in Bangladesh, Bengali acts as a significant medium for fostering financial inclusion in agriculture, SMEs, and the gig economy. Grin et al. (2011) assert that linguistic accessibility is essential for informed economic engagement. In a nation where Bengali is spoken by more than 98% of the populace (Rumnaz Imam, 2005), using the national language in policy communication, training initiatives, and digital services markedly improves understanding, decision-making, and market participation. Bengali-language extension services and mobile advising platforms in agriculture have enhanced farmers' adoption of contemporary techniques, increasing productivity and food security (Awal, 2024). Likewise, SME development projects employing Bengali for financial literacy, entrepreneurship training, and regulatory assistance have broadened chances for small business proprietors, especially in rural and peri-urban regions. The burgeoning gig economy has facilitated increased engagement among youth and semi-skilled workers, particularly those without English or digital literacy proficiency, through platforms providing interfaces, onboarding materials, and skills training in Bengali. These targeted

initiatives correspond well with the Sustainable Development Goals (SDGs), namely SDG 8 (Decent Work and Economic Growth) and SDG 9 (Industry, Innovation, and Infrastructure), by promoting inclusive economic growth and enhancing access to innovation-oriented jobs. Bengali functions as both a cultural identifier and a strategic development instrument—facilitating resource accessibility, enhancing human capital, and fostering a more equitable economic future for Bangladesh (Nur, 2024).

Agricultural Sector: Eliminating Knowledge Disparities via Bengali Interaction

Using Bengali in agricultural communication significantly enhances economic inclusion and sustainable development in Bangladesh's primarily agrarian economy. Localized communication initiatives have demonstrated significant efficacy in closing the knowledge gap between policy innovations and smallholder farmers. Agricultural extension services in Bengali enable farmers to comprehend and implement climate-resilient practices, resulting in enhanced productivity and resilience. Katalyst's inclusive market development programs include Bengali-language teaching on seed selection, irrigation, and fertilizer application, leading to 18-22% production gains among participating farmers (Swiss contact, 2017). Moreover, essential government policies—such as the National Agricultural Policy (2023) and the subsidized agricultural loan schemes of Bangladesh Bank—are disseminated in Bengali to guarantee transparency and accessibility. This method has allowed more than 84% of rural households to understand subsidy conditions and manage loan applications and repayments, improving financial inclusion and bolstering livelihood security (BBS, 2023). By rendering agricultural knowledge and resources linguistically accessible, Bengali serves not merely as a communication medium but

as a catalyst for equitable development and environmental sustainability in rural Bangladesh.

Small and Medium Enterprises (SMEs): Facilitating Entrepreneurship via Bengali-Language Accessibility

Small and medium companies (SMEs) are essential catalysts for employment and innovation in Bangladesh, and the extensive utilization of Bengali in financial and regulatory frameworks has markedly improved economic inclusion in this sector (Islam, 2022). Bengali-language microfinance agreements, mobile banking services such as bKash, and financial literacy resources have diminished entrance hurdles for enterprises, especially in rural regions with little English proficiency (Refat, 2023). Consequently, rural SME proprietors have successfully accessed financing and conducted transactions with more confidence (Bosri, 2016). The SME Foundation has enhanced inclusive growth by providing Bengali-language training in export compliance, marketing, and digital company operations. This has resulted in a 31% increase in registrations of women-led SMEs since 2022, illustrating how linguistic inclusion empowers marginalized populations (SME Foundation, 2023). The government's initiative to streamline bureaucratic procedures via Bengali standards for VAT registration, trade licensing, and business formalization has alleviated administrative barriers, helping more than 420,000 micro-enterprises in 2024 (NBR, 2024). By democratizing entrepreneurship via accessible language, Bengali facilitates broader citizen engagement in economic activities, aligning with SDG 8 (Decent Work and Economic Growth) and SDG 10 (Reduced Inequality) significantly.

The Gig Economy: Digital Inclusion Employing Bengali-Language Platforms

The swift growth of Bangladesh's gig economy has generated novel employment opportunities, especially for youth and informal laborers. Bengali facilitates digital inclusiveness by rendering gig platforms and training programs accessible to a broader populace. Prominent ride-sharing and delivery applications, such as Pathao and Foodpanda, have integrated Bengali-language interfaces and onboarding resources, enabling more than 12 million gig workers to comprehend contracts, payment mechanisms, and safety protocols more effectively (Bitto et al., 2023). This localization has markedly lowered miscommunication and bolstered user confidence, especially among employees with restricted English competence. Government-supported initiatives such as a2i's "Skills for Freelancers" program have established Bengali-language digital literacy and freelancing curricula, teaching more than 890,000 workers since 2023. This initiative has resulted in a 40% rise in Bangladeshi engagement on international freelance platforms like Up-work and Fiverr (Hasnayan & Sultana, 2016). Through incorporating Bengali in digital environments and skill enhancement initiatives, Bangladesh has progressed towards fulfilling SDG 8 (Decent Work and Economic Growth) and SDG 9 (Industry, Innovation, and Infrastructure), enabling a new cohort of workers to excel in the changing global economy (Rahman, 2021).

Coherence with Sustainable Development Goals (SDGs): The Contribution of Bengali to Economic Inclusion

Using the Bengali language in economic frameworks is essential for promoting Bangladesh's progress towards the Sustainable Development Goals (SDGs). By rendering economic information,

training, and digital platforms linguistically accessible, Bengali directly facilitates SDG 8 (Decent Work and Economic Growth) by promoting broader engagement in income-generating activities, particularly among youth, informal workers, and rural communities. It also pertains to SDG 10 (Reduced Inequalities) by eliminating language-based obstacles that have traditionally marginalized women, low-income populations, and persons with restricted formal education from economic opportunities (Nur, 2024). Furthermore, vocational and entrepreneurial training in the Bengali language corresponds with SDG 4 (Quality Education) by promoting lifelong learning and skill development customized to local needs. By employing this inclusive language strategy, Bangladesh mitigates informational inequality, enhances human capital, and fosters a development model grounded in equity and local empowerment (Sarkar et al., 2022). We recognize Bengali not merely as a national language but as an essential facilitator of sustainable and inclusive economic development.

Limitations and Gaps in the Implementation of Bengali Language-Based Tools in Bangladesh:

- **Digital Content and AI Representation:** The development and efficacy of AI-driven tools like generative AI and machine translation are hampered by the severe lack of high-quality digital content available in Bengali. There is a negative feedback loop whereby AI models trained on such data generate subpar outputs because a large portion of the online Bengali literature is rife with irregular spelling, bad grammar, and structural flaws. This reduces the utility of digital tools for Bengali speakers and lowers the quality of automated Bengali output (Chowdhury, 2025).

The majority of AI and digital platforms prioritize English and a few other main languages, leaving Bengali mostly missing from the global digital world. Bengali speakers

thus run the risk of being left out of the digital and artificial intelligence revolutions, which could deepen digital gaps and restrict their access to economic opportunities (Chowdhury, 2025).

- **Challenges in Technology:** The accuracy and maturity of Bengali language technologies, such as Automatic Speech Recognition (ASR) systems, are not up to par with those of international languages. Bengali's distinct grammatical and phonetic structure poses particular problems that need for specialized solutions, yet little study and development has been done in this field (Mridha et al., 2021).

There are notable gaps in the efficacy of tools like plagiarism checks, optical character recognition (OCR), and translation services for Bengali because they are frequently designed for English or other widely spoken languages. The creation of such tools is made more difficult by the absence of extensive databases and linguistic resources for Bengali (RIC, 2025).

- **Gaps in Policy and Resources:** Access and preservation are hampered by the lack of funding for the digitization of Bengali literature, historical documents, and other cultural assets. The risk of losing priceless language and cultural assets rises when systematic recording and digitization efforts are lacking (RIC, 2025).

There is still a lack of institutional and governmental support for the creation of digital technologies based on the Bengali language. The majority of digital literacy and financial inclusion programs are regulated rather than naturally embraced by tech firms and financial institutions, which restricts their viability and reach (Choudhury, 2014).

- **Educational and Sociocultural Barriers:** With little development into higher education, technical fields, and

professional communication, Bengali usage is frequently restricted to literature and specific cultural events. This limits the language's usefulness in fields where having access to Bengali-language training and information could be revolutionary, like as agriculture, SMEs, and the gig economy (FE, 2021).

Particularly among younger generations that are more focused on using English for academic and professional progress, there is a widening proficiency gap. By alienating sizable portions of the populace who are more accustomed to speaking Bengali, this movement runs the risk of escalating social and economic disparities (Mridha et al., 2021).

Bengali is becoming less widely used and valued in both every day and professional situations due to the influence of other languages and cultures, particularly Hindi and English. Bengali's positioning as a strategic tool for inclusive development is undermined by this cultural shift (FE, 2021).

Chart 2: Key Limitations and Gaps

Limitation/Gap	Description
Digital content quality and scarcity	Low quality, inconsistent Bengali content online; not enough data to train AI
Technological underdevelopment	Insufficient Bengali ASR, OCR, translation, and copyright detection instruments
Lack of digitization and resources	Bengali writings and resources are not being sufficiently digitized and archived.
Policy and investment limitations	Insufficient institutional and governmental backing for the development of digital tools in Bengal
Educational and proficiency divides	Bengali is not commonly used in technical or higher education domains, and young people are increasingly favouring English.

Cultural dilution and language shift	Bengali usage in the business and professional spheres is decreasing as English and Hindi gain traction.
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Even while tools based on the Bengali language have advanced economic participation in Bangladesh, there are still several important restrictions and gaps. To overcome these obstacles and guarantee that Bengali continues to be a dynamic and successful medium for social and economic empowerment, concerted efforts in digital content production, technological innovation, resource allocation, and policy support are needed.

Strengthening Cultural Resilience and Promoting Sustainable Development in Bangladesh

Globalisation offers both advantages and obstacles for emerging countries such as Bangladesh. Although it promotes economic development and technical progress, it simultaneously endangers cultural identities and indigenous languages. The Bengali language, utilised by the predominant population of Bangladesh, constitutes a fundamental aspect of the nation's cultural legacy and identity (Deb, 2021). This essay examines how the preservation and promotion of the Bengali language foster sustainable development by strengthening cultural resilience against the homogenising impacts of globalisation.

Bengali Identity and Sustainable Development Employing Cultural Adaptation

The Bengali language is essential for promoting sustainable development by strengthening cultural resilience against globalization. Grounded on Bourdieu's (1991) notion of cultural capital, Bengali transcends essential communication, serving as a

repository of collective memory and identity—from the seminal 1952 Language Movement to the persistent vitality of folk music and oral traditions. This corresponds with Sen’s (1999) capacity perspective since maintaining linguistic identity allows individuals to access and participate in their cultural history, thus augmenting their freedom and agency. Appadurai (1996) warns that globalization produces “cultural flows” that may marginalize Indigenous languages, a phenomenon observable in Bangladesh, where English-language media and education increasingly prevail among the elite (Sultana et al., 2020). Such changes jeopardize the cultural fabric intricately woven inside Bengali society. In response to this problem, UNESCO’s 2003 Convention and SDG 11.4 underscore the necessity of preserving intangible cultural resources, encompassing language. Bangladesh’s National Education Policy 2010 supports Bengali-medium instruction as a strategic initiative to preserve cultural resilience amid global homogeneity.

Factors of Cultural Resilience

Bengali enhances sustainable development by strengthening cultural resilience via several institutional and societal systems. Central to this is the advocacy for mother-tongue education, which has demonstrated efficacy in improving cultural knowledge retention and identity development. Asadullah and Chaudhury (2013) assert that students from Bengali-medium schools exhibit a superior understanding of national history and cultural narratives relative to those from English-medium schools. Bangladesh’s legal structure bolsters the educational advantage, particularly Article 3 of the Constitution, which designates Bengali as the only state language, requiring its application in governmental, judicial, and administrative spheres. Moreover, the nation’s extensive literary legacy,

featuring the internationally acclaimed works of Rabindranath Tagore, is a fundamental source of cultural pride and continuity (Datta, 2018). The preservation and promotion of Bengali literature enhance collective identity and protect the intellectual traditions that support Bangladesh's socio-cultural growth in a progressively globalized society.

Media and Arts: Safeguarding Heritage

Bengali facilitates sustainable development by acting as a potent vehicle for preserving and transmitting cultural legacy throughout generations, primarily through media and the arts. National curricula incorporating the literary contributions of giants such as Rabindranath Tagore and Jasimuddin foster a collective identity and ethical ideals, grounding youth in a uniquely Bengali perspective (O'Connell & O'Connell, 2008). In addition to literature, the persistent appeal of Bengali folk music, exemplified by Baul songs, and culturally significant cinema—such as the socially aware films of Tareque Masud—function as artistic expressions of defiance against the infiltration of Western cultural standards (Hoek, 2024). Using Bengali as the principal medium of teaching in educational establishments improves access to education and preserves cultural narratives and values (Afrin & Baines, 2020). Bengali-language media, encompassing print newspapers, television, and digital platforms, are essential for sharing local information, customs, and perspectives, thus preserving a culturally rooted public discourse among global media influences.

Grassroots Initiatives and Digital Resistance

Bengali fortifies cultural resilience and fosters sustainable development by integrating grassroots movements with

internet activism. A quintessential example is International Mother Language Day, celebrated worldwide on February 21 and acknowledged by UNESCO. This day commemorates the martyrs of the 1952 Language Movement, who advocated for linguistic rights, and it perpetuates initiatives to preserve and promote Bengali domestically and internationally (Rahman, 2020). In the digital age, platforms such as Rokomari.com, which provides an extensive selection of Bengali e-books, and Bongo BD, a center for Bengali music and entertainment, have become essential for enhancing public access to Indigenous cultural content (Mahmud et al., 2018). These digital efforts facilitate cultural participation among younger generations, enabling people to connect with their heritage through contemporary methods (Bhuiyan, (2024). These activities and forums collectively guarantee that Bengali persists as a dynamic, changing language capable of resisting the homogenizing forces of globalization while fostering a culturally inclusive framework for sustainable development.

Support to Sustainable Development

Promoting the Bengali language is intricately connected to many United Nations Sustainable Development Goals (SDGs), rendering it an essential instrument for fostering sustainable development in Bangladesh. In Quality Education (SDG 4), education in the mother tongue, specifically Bengali, has enhanced understanding and academic achievement among young learners. This fundamental method facilitates elevated educational achievement and guarantees that students comprehensively understand the cultural and historical backdrop of their studies (Alam et al., 2024). The use of Bengali as the principal language of communication promotes Reduced Inequalities (SDG 10), guaranteeing that marginalized groups,

especially rural and Indigenous populations, attain equitable access to education, healthcare, and other vital services. Ultimately, promoting Bengali enhances Sustainable Cities and Communities (SDG 11) by safeguarding the cultural fabric of local communities, strengthening collective identity, and cultivating social cohesiveness (Islam, 2006). These elements are essential for creating dynamic, sustainable urban settings that honor and commemorate local tradition while interacting with contemporary society. Bengali is essential in fostering education, social inclusion, and cultural preservation, contributing to a more equal and sustainable future for Bangladesh.

Advancing Sustainable Development through Digital Localization in Bangladesh

The digital divide in Bangladesh is profoundly influenced by linguistic exclusion, a concept highlighted by Van Dijk's (2020) theory of digital inequality, which asserts that language barriers exacerbate existing technology inequities. Given that around 10% of the population is skilled in English, the imperative for Bengali-language digital interfaces is evident to facilitate inclusive digital engagement. In this setting, localization is an essential development approach. The "Designing for the Next Billion Users" methodology promotes digital solutions customized to local languages, literacy levels, and cultural practices—principles Bangladesh has actively adopted in its digital transformation efforts (Hossain et al., 2019). This localization technique improves usability and coincides with global development goals. Bengali-language digital technologies directly support Sustainable Development Goals. By prioritizing Bengali in digital platforms, Bangladesh closes linguistic divides, promotes equity, and expedites advancement towards sustainable development.

Bengali Language and Digital Inclusion

The Bengali language is essential for advancing sustainable development in Bangladesh by enabling digital adaptation via localized technology. The Bengali Language Introduction Act mandates the utilization of Bengali in all governmental and legal actions, reinforcing its prominence in public administration and promoting language inclusivity in digital transformation. This legislative endorsement has facilitated the establishment of extensive digital infrastructure, as seen by the government’s National Portal, which has over 45,000 websites providing services in Bengali and garners over 60 million monthly visits (World Economic Forum) (WEF, 2020). Furthermore, technological developments have significantly enhanced Bengali’s digital utilization. The Bangladesh Computer Council (BCC) has established standards such as the “Bangla Coded Character Set for Information Interchange” to facilitate the incorporation of Bengali in information technology systems (BCC, 2025). Furthermore, other AI-driven applications—such as ‘Sathik’ for spell-checking, ‘Janamat’ for sentiment analysis, and ‘Uchcharan’ for text-to-speech—have been created to enhance user engagement and facilitate access to digital services in the native language (UNB, 2024). These developments jointly foster digital inclusion, narrow the digital gap, and bolster the nation’s overarching objectives for sustainable and equitable development.

Sectoral Implications of Bengali Localising

The Bengali language plays a crucial role in sustainable development in Bangladesh by facilitating digital adaptation in essential areas via localized technology (Ferdouse, 2023). Integrating Bengali into digital platforms in education has expanded learning access, especially for marginalized areas. The

government's ShikkhokBatayon portal offers an extensive array of educational resources in Bengali that are advantageous for educators and students nationwide. In addition to this endeavor, NGOs such as the JAAGO Foundation have spearheaded digital education efforts that provide quality instruction in Bengali to rural regions (JAAGO, 2025). In the agriculture industry, localized digital technologies have enabled farmers to obtain important information in real time. Platforms like Krishoker Janala and the A2i Agriculture Portal provide weather updates, market prices, and expert guidance in Bengali, improving decision-making and increasing production (Mohammad & Dey, 2024). Bengali-language digital services have enhanced access to medical information in healthcare, particularly in disadvantaged rural areas. Telemedicine systems and mobile applications like as Aponjon offer crucial maternal and child health assistance in Bengali, enhancing health outcomes (Alam et al., 2019). The sector-specific uses of Bengali localization not only overcome digital inequalities but also advance equitable and inclusive development throughout the country.

Community Involvement in Cultural Stewardship

The Bengali language promotes sustainable development in Bangladesh by fostering digital adaption in education, governance, the economy, and cultural preservation. Bengali-language e-learning systems and localized digital content have markedly enhanced access to education and capacity building, particularly during the COVID-19 pandemic and in distant regions, thereby addressing the urban-rural gap and fostering lifelong learning (Hasan & Bao, 2020). Providing public services in Bengali under e-governance has improved transparency, efficiency, and citizen engagement. Services, including digital birth registration, property records, and social safety net programs, are rendered more accessible and effective when delivered in

the native language. Bengali-language digital technologies economically empower small enterprises, entrepreneurs, and farmers by providing essential market information, financial services, and training in a local language, thus enhancing production, fortifying economic resilience, and alleviating poverty (Junayed et al., 2025). Moreover, community-driven projects like the Bengali Wikipedia, overseen by Wikimedia Bangladesh, are crucial for strengthening digital information in the native language (Dastider, 2021). The nation’s initiative to digitize 40 ethnic languages, including 14 endangered ones, highlights its dedication to linguistic inclusivity and cultural preservation, thus strengthening the overarching objectives of sustainable and inclusive development.

Chart 3: The Role of Bengali in Sustainable Development in Bangladesh

Thematic Area	Key Contributions	Aligned SDGs
Augmenting Academic Achievement by Mother-Tongue Learning	<ul style="list-style-type: none"> – Enhanced literacy and conceptual comprehension in early academy. – Enhanced retention and diminished rates of dropping out. – Improved inclusion for indigenous pupils. 	SDG 4 (Quality Education)
Advancing Economic Inclusion in Agriculture, Small and Medium Enterprises, and the Gig Economy with Native Language Education	<ul style="list-style-type: none"> – Proficiency in the Bengali language enhances agricultural productivity and understanding of finances. – Small and medium enterprise expansion facilitated by accessible banking and policy documentation. – Gig employment supported by Bengali user interfaces. 	SDG 8 (Decent Work), SDG 10 (Reduced Inequalities), SDG 9 (Industry, Innovation)

Thematic Area	Key Contributions	Aligned SDGs
Enhancing Cultural Sensitivity in the Face of Globalization:	<ul style="list-style-type: none"> – Safeguarding linguistic legacy and identity. – Advocating for local literature, arts, and media in Bengali. – Opposition to cultural uniformity. 	SDG 11 (Sustainable Cities and Communities), SDG 16 (Peace, Justice, and Strong Institutions)
Enhancing Digital Adaptation with Localized Technology:	<ul style="list-style-type: none"> – Augmented digital literacy using Bengali-language resources. – Expanded civic engagement via Bengali e-governance platforms. – Technological accessibility for remote communities. 	SDG 9 (Industry, Innovation), SDG 17 (Partnerships for the Goals)

Conclusion and Recommendations

Bengali transcends mere linguistic classification and serves as a sustainable development conduit. This study illustrates that by strategically utilizing its language legacy in education, economics, and technology, Bangladesh can attain inclusive progress while preserving its cultural identity. The results indicate that mother-tongue-based education improves learning outcomes, promotes economic inclusion, and increases digital accessibility while simultaneously strengthening cultural resilience in the face of globalization. To fully leverage Bengali's potential, future studies must evaluate its direct contributions to GDP and examine its role in climate communication, ensuring that the language continues to be a dynamic force in national development. The 1952 Language Movement was not solely a fight for language rights but a pivotal event that influenced Bangladesh's socio-political and developmental path. Currently, Bengali is essential in education by enhancing literacy and

decreasing dropout rates, in the economy by empowering small and medium enterprises and gig workers, and in technology by providing localized digital material that addresses accessibility disparities.

Furthermore, as a cultural cornerstone, Bengali sustains national identity in the face of globalization, demonstrating that language is both a symbol of legacy and a catalyst for advancement. By contextualizing Bengali within the Mother Language Paradigm, the study transcends cultural symbolism to establish it as a developmental asset—one that enhances human capital (SDG 4), stimulates economic growth (SDG 8), fosters innovation (SDG 9), and promotes cultural sustainability (SDG 11). These insights necessitate the enhanced incorporation of language-sensitive policies in national planning, ensuring that linguistic inclusion remains crucial to Bangladesh's Vision 2041. The sustainable development of Bangladesh is fundamentally linked to the preservation and strategic utilization of its native language. By acknowledging Bengali as a driver of fair advancement, policymakers may create initiatives that optimize its educational, economic, and technical advantages while promoting cultural continuity. As Bangladesh confronts the problems of increasing digitization, globalization, and climate change, Bengali must serve not only as a means of communication but also as a fundamental element of sustainable and equitable development.

This study has a number of limitations even if it provides important insights into the Bengali language's contribution to Bangladesh's progress. First, because qualitative data are subjective and context-specific by nature, the qualitative methodology—which mostly consists of historical analysis and modern observation—introduces methodological limitations, such as researcher bias, restricted objectivity, and

difficulties with replicability. Second, the study's findings are more exploratory than conclusive because it does not aim to prove a causal link between the usage of Bengali and observed effects like improved education or digital adaptation. Third, the sample approach is not statistically representative, which may lead to the exclusion of a range of demographic or regional linguistic experiences. Fourth, the trustworthiness of the data may be impacted by participant and researcher biases, such as socially desired responses and hindsight bias. Fifth, there are contextual constraints, especially in multilingual regions where putting mother tongue-based policies into practice may provide infrastructure and logistical difficulties. Sixth, by including education, the economy, culture, and technology, the wide reach may compromise analytical depth and may ignore the complexities unique to each area. Lastly, the viability of the suggested policy recommendations may be hampered by logistical and resource limitations, such as poor infrastructure, insufficient teacher preparation, or financial shortages. To understand the results in the proper context and to guide future research and policies, it is imperative to acknowledge these limitations.

This study provides some recommendations such as:

- Incorporate Bengali into Vocational and STEM (Science, Technology, Engineering, and Mathematics) Education: Broaden mother-tongue education to incorporate vocational training and STEM disciplines to improve comprehension, foster innovation, and ensure equitable access to in-demand professions.
- Invest in Digital Tools for the Bengali Language: Develop localized technologies, including speech recognition, AI educational tools, and software, to enhance digital inclusion and facilitate Bangladesh's digital transformation.

- Advocate for Bengali in Global Platforms: Promote the utilization of Bengali on international platforms to advance linguistic equity and bolster Bangladesh's cultural influence in global diplomacy.
- Advocate for Bengali Cultural Industries: Allocate financial resources and digital infrastructure to enhance Bengali literature, film, music, and content production, promoting cultural resilience and stimulating creative economic development.

Applying these recommendations would assist Bangladesh in preserving its linguistic variety, fostering equity, and utilizing its mother tongue and indigenous languages for national unity and development, which are essential for the Sustainable Development of Bangladesh.

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Is English Teaching and Learning Effective through Blended Approach in Bangladesh? An Empirical Study

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Abstract: This empirical study identifies important elements impacting the deployment of blended learning and investigates its efficacy in English teaching throughout Bangladesh. Correlation analysis showed that usage frequency, teaching experience, and participant categorization all had a substantial impact on how successful blended learning was regarded, with younger or less experienced instructors showing superior conceptual knowledge. Regression analysis revealed that while skill improvement alone was not a significant predictor, knowledge of blended learning was significantly correlated with active involvement, institutional support, and teacher engagement. A thorough, multifaceted strategy is necessary for blended English language training in Bangladesh to be successful, according to the findings. The basis must be a strong digital infrastructure, first and foremost. This has to be followed by consistent funding for teacher preparation, student assistance programs, better internet access, and the thoughtful integration of cutting-edge technology like machine learning. It

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will need concerted efforts from legislators, schools, IT companies, and community stakeholders to accomplish these objectives. Blended learning in Bangladesh cannot develop into an inclusive, long-lasting, and significant educational paradigm without such cooperation. According to the study's findings, a comprehensive and inclusive strategy is necessary for long-term success. This strategy combines innovations in education delivery, pedagogical training, institutional support, learner support, and technology advancements to guarantee fair and efficient blended English instruction in Bangladesh.

Keywords: Blended Learning, Multifaceted, Digital Infrastructure, Inclusive Strategy, Pedagogical Training.

Introduction

Blended learning, which blends traditional in-person instruction with online resources, has emerged as a game-changing method in education, especially in the field of English language teaching (ELT). It is recognized for improving academic performance, critical thinking, and student involvement (Hafeez, 2021 & Sejdiu, 2014). When the COVID-19 epidemic forced a switch to online schooling, blended learning's uptake in Bangladesh surged (Hossen, 2023; Chowdhury & Behak, 2022). However, issues including poor digital infrastructure, a lack of teacher preparation, and uneven internet access make it difficult for blended learning to be implemented in Bangladeshi educational institutions (Ashraf et al., 2021; Rabbi et al., 2024 & Khan et al., 2020). Prior studies have emphasized the advantages and challenges of blended learning in Bangladesh. Although blended learning provides flexibility, research indicates that faculty skill shortages and infrastructure constraints impede its adoption

(Mitra et al., 2023). Fostering cooperation and cognitive growth also requires a student-centered approach (Islam, 2022). According to international research, these conclusions are supported by the fact that effective teacher preparation and technology integration can enhance language learning results (Kamble, 2022 and Kumar et al., 2021). The usefulness of blended learning for ELT in Bangladesh has not been empirically studied, despite the rising corpus of research. In order to close this gap, this research assessed important elements including teacher preparation, digital infrastructure, and cutting-edge technologies like machine learning. The results will be useful for educators and policymakers.

Statement of the Problem

Although blended learning techniques are becoming more popular worldwide in English language instruction, Bangladesh still has a lot of trouble putting this concept into practice. Even though prior research has emphasized the potential advantages of blended learning, such as increased student involvement, better learning outcomes, and the development of vital digital skills, there is still a significant knowledge vacuum regarding the effects of blended learning on English instruction and learning in Bangladesh. The successful use of blended techniques is seriously hampered by a number of factors, including inadequate pedagogical models, digital disparities, inadequate teacher preparation, a lack of institutional support, and infrastructure constraints. Additionally, there is a paucity of empirical data assessing the efficacy of blended English instruction in Bangladesh across a range of institutional and demographic contexts. This study aims to determine the key elements that either support or undermine the effectiveness of blended learning and teaching of English in Bangladesh.

Objectives of the Study

The main objective of this study is to evaluate how effective blended learning techniques are for teaching and learning English in Bangladesh.

Additional objectives are:

- a) To determine the main infrastructural, pedagogical, and technical aspects of blended English learning. Then, investigate how teacher preparation, student services, and institutional support improve results.
- b) To evaluate how digital infrastructure and internet connectivity affect fair blended learning, and investigate how cutting-edge technologies like machine learning may be used to tailor English education.
- c) To provide useful tactics those politicians, institutions, and teachers may use to maximize blended English instruction throughout Bangladesh.

Review of the Earlier Literature

Blended Learning's Efficacy in Raising Learning Outcomes

Academic performance, critical thinking, and student happiness have all been shown to improve with blended learning in a variety of educational contexts. Research by Hafeez (2021), Ma and Lee (2021), and Ashraf et al. (2021) shows that blended learning is more successful than entirely online or conventional methods in encouraging active engagement and improving student results. They showed through experimental approaches that mixed formats greatly increase pleasure, confidence, and attentiveness. Similar findings were made by Kassem (2020), who highlighted the model's emotional and cognitive advantages by finding that students in blended

learning contexts had more positive attitudes and less academic stress than those in traditional settings. Additionally, the use of ICT tools in mixed frameworks has been shown to enhance student comprehension and learning quality (Kamble, 2022; Salleh, 2017). These results promote better teaching and assessment practices, as demonstrated by Sejdiu (2014), who demonstrated enhanced engagement and efficacy in English language acquisition using blended education.

Views of Teachers and Students on Blended Learning

The successful implementation of blended learning depends on the perceptions of both teachers and students. According to Kumar et al. (2021), blended learning is popular across all educational levels and enhances student capacities. Bangladeshi university students had overwhelmingly positive experiences, citing benefits including enhanced teacher feedback, improved peer connections, and more flexible study schedules (Chowdhury and Behak, 2022). Mitra et al. (2023) and Islam (2022) highlighted that although educators acknowledge the pedagogical benefits of blended learning, they still encounter obstacles such as heightened workloads and inadequate digital proficiency. Particularly in poorer nations where infrastructure and capacity may fall behind technological promise, these perspectives highlight the larger need for institutional support and training.

Innovations and Pedagogical Models in Blended Learning

For blended learning to be optimized, innovative pedagogical approaches are essential. Islam (2022) suggested a three-phase interaction model that combines synchronous, asynchronous, and online modalities to promote cooperation and cognitive growth. A modified methodology that incorporates machine

learning to promote outcome-based education was also presented by Mitra et al. (2023) for the Bangladeshi setting. These contributions are further supported by Hrastinski (2019), who frames blended learning as a pedagogical approach rather than a mode of delivery. His theoretical observations support the empirical results of research such as Ma and Lee (2021) by highlighting the significance of deliberate design in fostering learner autonomy and sustained engagement.

Implementation Issues and Situational Barriers

Even with its advantages, blended learning adoption is hampered by several obstacles. Persistent problems impacting both instructors and pupils include inadequate ICT skills, inadequate infrastructure, and a lack of institutional support, according to Ashraf et al. (2021) and Al-Mekhlafi and Al-Mahrooqi (2016). Hossen (2023) echoes these results by pointing out comparable challenges in the Bangladeshi setting and stressing the necessity of fair access to technology. Furthermore, even after curricular modifications, Jiang and Li (2012) discovered that applying blended learning models in university English instruction is still challenging because of systemic and practical limitations. These restrictions imply that more extensive legislative changes and professional growth are required to support successful blended learning.

Blended Learning in teaching English

English language training might benefit greatly from blended learning, particularly in settings with limited resources. Rabbi et al. (2024), Hossen (2023), and Sejdiu (2014) all highlighted how incorporating technology into language classes may increase student competency, foster inclusivity, and close the digital divide. These studies demonstrate how adaptation is supported and critical skills for a globalized environment are developed when traditional education and digital resources are

combined. Rahman (2019) also emphasized the ways in which mixed learning settings support the development of cognitive abilities and problem-solving skills, both of which are critical for language learning. The significance of digital integration and pedagogical preparedness is emphasized, which is consistent with more general conclusions from theoretical and practical research.

Rational of the Study

This study is noteworthy because it provides empirical data on the efficacy of blended learning (BL) in Bangladeshi English teaching, therefore addressing a crucial research vacuum. It highlights the digital gap that prevents equal access while identifying critical success elements, such as digital infrastructure, teacher readiness, and institutional support. This research emphasizes the necessity for scalable, context-specific BL models appropriate for Bangladesh's socioeconomic reality, in contrast to the majority of studies conducted in wealthy nations. In order to create blended learning techniques that are sustainable and guarantee that students have the digital and lifetime learning skills necessary for global competitiveness, it advocates for inclusive tactics and long-term, mixed-method research.

Research Questions

- a) To what extent does blended learning enhance English education, and what barriers prevent its successful implementation?
- b) How does the efficacy of mixed English education depend on programs for student assistance and teacher preparation?
- c) How do machine learning and internet access improve flexibility and equity in blended English courses?

- d) How do understanding, involvement, and support affect the adoption of blended learning, and what changes are suggested?

Theoretical Framework

This study utilizes the Community of Inquiry (CoI) Framework (Garrison, Anderson, & Archer, 2000) and Constructivist Learning Theory (Vygotsky, 1978). Learner-centered, experiential learning through interaction is emphasized by constructivism, which is consistent with blended learning, which combines online and in-person instruction. This is supported by the CoI paradigm, which identifies social, cognitive, and instructional presence as critical components of meaningful learning in mixed and online settings. Moreover, the Technology Acceptance Model (TAM) (Davis, 1989) describes how perceived utility and usability affect the adoption of educational technology. Together, these frameworks complement the study's emphasis on infrastructure readiness, institutional support, and teacher preparation. Designing inclusive and successful blended English education initiatives in Bangladesh requires modifying these ideas to account for regional difficulties and digital inequalities.

Research Methods

The study used an empirical and qualitative research approach in order to gather data that could result in useful conclusions on the application of blended learning in English instruction. To examine participant replies, both descriptive and inferential statistical techniques were applied.

Data Collection

Data on participant demographics, experiences, attitudes, and blended learning issues were gathered through the use of 22 (twenty two) structured questionnaires. Among other things, the

questionnaire asked about knowledge, experience, and efficacy of blended learning.

Sample size

Respondents are one hundred people. Participants were university teachers, higher secondary college teachers, undergraduate students, and higher secondary students. Purposive sampling was used in order to record a wide variety of blended learning experiences.

Variables

The study uses these variables depending on the answer of the participants i) understanding the concept of blended learning, which combines online and in-person instruction, ii) having any experience using a mixed method to teach or study English, iii) frequency of using blended learning, iv) platform of blended learning, v) the helping trends of blended learning improve the teaching and learning of English. vi) best enhanced abilities done by blended learning, vii) effective engagement students and teachers through mixed learning, viii) engagement of blended learning in contrast to traditional classroom instruction, ix) offer of advantages through mixed learning, x) enhancement of evaluation and assessment procedures by blended learning, xi) digital gap in education get lessened with blended, xii) difficulties of blended learning, xiii) blended learning causes digital gap among pupils, xiv) process to be implemented through blended learning which will be more effective in English education, xv) encouragement of blended learning in Bangladeshi English Language Instruction, and xvi) educational establishments to facilitate blended learning. But among them only seven variables are taken into consideration which are closely related to dependent variables, ‘understanding

the concept of blended learning, which combines online and in-person instruction' and have no multi-collinearity effect.

Data Analysis Methods

Examination of Frequency Distribution: Table 01 and 02 exhibit the results of frequency distributions that were used to describe the demographics and blended learning experiences of the participants. They emphasized important factors such as age, gender, title, blended learning experience, and opinions on how beneficial it is. A collinearity diagnostic was used to evaluate the stability and dependability of the variables that were selected. Correlation coefficients were computed to investigate the links between variables (Table-03 (i) and Table-03 (ii)). As shown in Tables No. 4 and No. 5, Multiple Regression Analysis was performed to determine the impact of the selected variables. We have chosen the regression model shown below to test our hypothesis in light of the variables:

$$D_{it} = \alpha_{it} + \beta_1 i_{it} + \beta_2 ii_{it} + \beta_3 iii_{it} + \beta_4 iv_{it} + \beta_5 v_{it} + \beta_6 vi_{it} + \varepsilon_{it}$$

where i) indicates best enhanced abilities done by blended learning ii) Engagement of Blended Learning, iii) Improvement in teaching and learning, iv) difficulties of blended learning, v) encouragement of blended learning in Bangladeshi English Language Instruction, and vi) educational establishments to facilitate blended learning and D means understanding the concept of blended learning, which combines online and in-person instruction. $\alpha_{it=1,2,3,4,5}$, and β_6 = Coefficients to be estimated; and ε = Error component for the variables.

Tools and Software

MS-Excel and Statistical software SPSS, version 2024 were used for data processing.

Reliability Test

In Collinearity Diagnostics of the selected variables, it is found that higher eigenvalue (6.055) indicates stable components, while smaller eigenvalues (like 0.021) hint at potential collinearity issues. When Condition Index >10 signals moderate multi-collinearity and Condition Index >30 would indicate serious multi-collinearity. However, in this case, the highest Condition Index is 16.872, suggesting moderate multi-collinearity, but not critical. This collinearity diagnostic suggests that while multi-collinearity exists moderately among some predictors, it is manageable and does not critically threaten the validity of the regression results.

Results, Discussions and Findings of the Research

Discussion

Table-01
Frequency Distribution Analyses

		i	ii	iii	iv	v	vi	vii	viii	ix
N	Valid	100	100	100	100	100	100	100	100	100
	Missing	0	0	0	0	0	0	0	0	0
Mean		2.50	1.24	2.43	2.12	1.25	1.25	2.90	2.69	4.15
Median		2.50	1.00	2.50	2.00	1.00	1.00	3.00	2.00	4.00
Std. Deviation		1.12	0.43	1.06	0.78	0.44	0.44	1.38	1.34	0.85

		i	ii	iii	iv	v	vi	vii	viii	ix
Minimum		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00
Maximum		4.00	2.00	4.00	3.00	2.00	2.00	5.00	4.00	5.00
Sum		250.00	124.00	243.00	212.00	125.00	125.00	290.00	269.00	415.00

Source: Data collected from the respondents of the structured questionnaire and assessed using SPSS, version-2024.

Here i) means designation of the participants, ii) gender, iii) age, iv) years of teaching or learning, v) understanding the concept of blended learning, which combines online and in-person instruction, vi) having any experience using a mixed method to teach or study English, vii) frequency of using blended learning, viii) platform of blended learning, ix) the helping trends of blended learning improve the teaching and learning of English.

Table-02
Frequency Distribution Analyses

		x	xi	xii	xiii	xiv	xv	xvi	xvii	xviii	xix	xx
N	Valid	100	100	100	100	100	100	100	100	100	100	100
	Missing	0	0	0	0	0	0	0	0	0	0	0
Mean		3.61	1.18	2.10	4.86	1.32	1.00	5.66	2.00	4.04	1.20	1.86
Median		3.00	1.00	2.00	6.00	1.00	1.00	7.00	2.00	5.00	1.00	1.00

Std. Deviation		1.45	0.52	0.70	1.76	0.74	0.00	2.63	0.00	1.33	0.60	1.36
Minimum		1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00
Maximum		5.00	3.00	3.00	6.00	3.00	1.00	8.00	2.00	5.00	3.00	5.00
Sum		361.00	118.00	210.00	486.00	132.00	100.00	566.00	200.00	404.00	120.00	186.00

Here x) indicates best enhanced abilities done by blended learning, xi) effective engagement students and teachers through mixed learning, xii) engagement of blended learning in contrast to traditional classroom instruction, xiii) offer of advantages through mixed learning, xiv) enhancement of evaluation and assessment procedures by blended learning, xv) digital gap in education get lessened with blended, xvi) difficulties of blended learning, xvii) blended learning causes digital gap among pupils, xviii) process to be implemented through blended learning which will be more effective in English education, xix) encouragement of blended learning in Bangladeshi English Language Instruction, and xx) educational establishments to facilitate blended learning.

Source: Data collected from the respondents of the structured questionnaire and assessed using SPSS, version-2024.

Participants' demographics, experiences, and opinions about the use of blended learning in English instruction are thoroughly revealed by the frequency distribution analyses shown in Tables 01 and 02. A comprehensive and trustworthy dataset for analysis was ensured by the 100 valid replies and the absence of missing values for each variable (i-xx). A varied and representative sample of participants from a range of age groups, genders, professional backgrounds, and degrees of English teaching or learning experience is revealed by the study's findings. The mean designation (2.50) and age (2.43), as shown in Table 1,

indicate that the sample mostly consists of reasonably young, professionally varied people. While there is a little bias toward one gender group, overall, the gender distribution (mean = 1.24) is balanced.

According to the findings, most participants had some past experience teaching or learning English using a mixed approach (mean = 1.25), and they are familiar with the ideas of blended learning (mean = 1.25). Even though blended learning is not widely used, a significant percentage of participants have found it to be meaningfully acceptable, as seen by the frequency of usage (mean = 2.90) and platform utilization (mean = 2.69), which show a moderate degree of adoption. Primarily, the high mean score (4.15) in enhancing English instruction and learning for the efficacy of blended learning suggests that respondents had overwhelmingly positive opinions.

In-depth topics including the perceived effects, difficulties, and potential of blended learning are examined in Table 2. Overall, participants had a favorable opinion, with improvement in English language proficiency receiving a mean score of 3.61 and acknowledgment of the benefits of blended learning receiving an even higher score of 4.86. There was a strong belief among participants (mean = 4.04) that improved usage of mixed approaches may result in more effective English instruction. But the results also point to important difficulties. The average score of 5.66 highlights the significant level of concern on challenges related to blended learning, including infrastructural issues, digital literacy gaps, and technological issues. Significantly, participants strongly disagreed (mean = 1.00) with the idea that blended learning has closed the digital divide, indicating that equity and access concerns still pose major obstacles.

When considering the background characteristics, cumulative percentages show a balanced spread across respondent types:

undergraduate students, higher secondary students, university teachers, and college teachers. Age distribution shows the largest group (32%) falls in the thirty to forty ranges, indicating a strong representation of early-to-mid career teachers. Meanwhile, younger groups (under twenty and twenty to thirty years) collectively form half of the sample, maintaining a balanced inclusion of both students and early-career educators. Regarding English learning or teaching experience, 63% have less than 20 years of experience, while 37% have more than 20 years. For familiarity with blended learning concepts, 75% of participants indicated they understood the concept, and a similar percentage had first-hand experience using blended methods. Of those that participated, 59% said they used blended learning at least “sometimes,” 29% “often,” and 12% “always.” Widespread use of numerous platforms (such as Zoom and Google Classroom) indicates a desire for a mixed toolset that uses a range of digital resources to accommodate different learning demands. A remarkable 87% of respondents agreed or strongly agreed that blended learning enhances English instruction when asked about its efficacy. A significant 47% of respondents said that blended learning improved all language abilities (reading, writing, speaking, and listening) in terms of skill development. The two individual abilities that were found to have improved the most were speaking (29%) and reading (12%). According to most responses, blended learning fosters improved communication between teachers and students. Thirty percent (37%) said blended learning was more engaging than regular classrooms, while fifty percent thought both were equally engaging. With most choosing “All” as the best description, the extensive advantages of blended learning—flexibility, availability, increased engagement; extra learning resources, and customized instruction—were resoundingly confirmed. Positive effects were also observed in assessment procedures: according

	i	ii	iii	iv	v	vi	vii	viii	ix	x
v	-.258**	0.000	-.785**	-.831**	1	1.000**	-.798**	-.507**	-.570**	0.076
	0.009	1.000	0.000	0.000		0.000	0.000	0.000	0.000	0.452
vi	-.258**	0.000	-.785**	-.831**	1.000**	1	-.798**	-.507**	-.570**	0.076
	0.009	1.000	0.000	0.000	0.000		0.000	0.000	0.000	0.452
vii	.527**	-0.010	.867**	.909**	-.798**	-.798**	1	.606**	.454**	-0.116
	0.000	0.920	0.000	0.000	0.000	0.000		0.000	0.000	0.252
viii	-0.003	-0.186	.395**	.605**	-.507**	-.507**	.606**	1	.443**	0.104
	0.974	0.064	0.000	0.000	0.000	0.000	0.000		0.000	0.305
ix	0.080	-.323**	.312**	.599**	-.570**	-.570**	.454**	.443**	1	-0.018
	0.430	0.001	0.002	0.000	0.000	0.000	0.000	0.000		0.861
x	-.320**	-0.043	-0.074	-.217*	0.076	0.076	-0.116	0.104	-0.018	1
	0.001	0.672	0.464	0.030	0.452	0.452	0.252	0.305	0.861	
	100	100	100	100	100	100	100	100	100	100

Source: Data collected from the respondents of the structured questionnaire and assessed using SPSS, version-2024.

Table No. 3 (ii)
Correlations of coefficients

	xi	xii	xiii	xiv	xv	xvi	xvii	xviii	xix	xx
i	0.052	-.294**	-0.056	0.000	. ^b	0.110	. ^b	-0.182	0.089	.211*
	0.608	0.003	0.580	1.000		0.278		0.070	0.376	0.035
ii	0.076	.321**	-0.009	.777**	. ^b	-0.142	. ^b	-.282**	0.047	-0.149
	0.452	0.001	0.933	0.000		0.159		0.005	0.644	0.139
iii	-0.032	-.344**	0.109	0.133	. ^b	0.144	. ^b	-0.156	0.054	0.014
	0.752	0.000	0.283	0.188		0.152		0.122	0.594	0.889
iv	0.095	-.591**	-0.061	-0.067	. ^b	-0.019	. ^b	-0.150	0.034	0.120
	0.345	0.000	0.547	0.506		0.849		0.136	0.735	0.234
v	0.067	.544**	-.230*	0.000	. ^b	-0.031	. ^b	0.122	-0.038	0.094
	0.508	0.000	0.021	1.000		0.760		0.227	0.704	0.354
vi	0.067	.544**	-.230*	0.000	. ^b	-0.031	. ^b	0.122	-0.038	0.094
	0.508	0.000	0.021	1.000		0.760		0.227	0.704	0.354

	xi	xii	xiii	xiv	xv	xvi	xvii	xviii	xix	xx
vii	0.025	-.488**	0.023	0.052	. ^b	0.063	. ^b	-0.075	0.073	0.078
	0.803	0.000	0.819	0.610		0.534		0.461	0.472	0.439
viii	0.168	-.256*	-.245*	-0.144	. ^b	-0.134	. ^b	-0.050	-0.023	0.164
	0.095	0.010	0.014	0.152		0.185		0.624	0.824	0.103
ix	0.099	-.365**	0.150	-.272**	. ^b	0.073	. ^b	0.004	-.218*	0.045
	0.328	0.000	0.137	0.006		0.469		0.972	0.029	0.659
x	-.201*	.514**	0.038	-0.109	. ^b	.570**	. ^b	0.097	-0.049	-0.146
	0.045	0.000	0.710	0.280		0.000		0.337	0.631	0.149
	100	100	100	100	100	100	100	100	100	100

Here i) means designation of the participants and they are Undergraduate Student / Higher Secondary Student / University Teacher/Higher Secondary College teacher, ii) gender, iii) age, iv) years of teaching or learning, v) understanding the concept of blended learning, which combines online and in-person instruction, vi) having any experience using a mixed method to teach or study English, vii) frequency of using blended learning, viii) platform of blended learning, ix) the helping trends of blended learning improve the teaching and learning of English, x) best enhanced abilities done by blended learning, xi) effective engagement students and teachers through mixed learning, xii) engagement of blended learning in contrast to traditional classroom instruction, xiii) offer of advantages through mixed learning, xiv) enhancement of evaluation and assessment procedures by blended learning, xv) digital gap in education get lessened with blended, xvi) difficulties of blended learning, xvii) blended learning causes digital gap among pupils, xviii) process to be implemented through blended learning which will be more effective in English education, xix) encouragement of blended learning in Bangladeshi English Language Instruction, and xx) educational establishments to facilitate blended learning.

Source: Data collected from the respondents of the structured questionnaire and assessed using SPSS, version-2024.

The characteristics associated with blended learning in English education are correlated, as shown in tables 3 (i) and 3 (ii). Important conclusions emphasize both favorable and unfavorable connections. As seen by the substantial positive correlation (.685) between participants' age and classification, older participants—such as university instructors—are more likely to use blended learning. The modest association between

age and gender is indicated by the somewhat positive correlation (.171) between the two variables. Gender has little to no impact on experience with mixed approaches, as seen by a very weak negative correlation (-.010). It is evident that older individuals have more experience because of the substantial positive correlation (.805) between age and years of teaching or learning. Understanding of blended learning is strongly correlated negatively (-.785) with age, indicating that older individuals may find blended learning more difficult. The usage of blended learning is more common among older participants, according to a high positive correlation (.867). Undergraduate and secondary students may have a weaker understanding of blended learning than instructors, as evidenced by a modest negative correlation (-.258) between the participants' categorization and the frequency of using it. Traditional practices may make it difficult for more seasoned instructors to adjust to blended learning, according to a substantial negative correlation (-.831). A substantial positive correlation (.909), however, indicates that blended learning is still widely used among seasoned educators. Notably, blended learning comprehension and usage may not necessarily correspond (-.798), perhaps as a result of institutional or technological constraints. The usage of blended learning is also not predicted by familiarity with mixed approaches (-.798). Frequent usage of blended learning is associated with better English language proficiency; its function in boosting engagement is highlighted by a substantial positive correlation (.443). It's interesting to note that there is a moderately negative connection (-.323) to the perceived benefits of blended learning, indicating that regular users might not always benefit from all of it, possibly because of the additional work required. Finally, a substantial positive connection (.514) highlights the need for improved digital access and demonstrates that lowering the digital gap improves the quality of blended learning.

Regression Analyses

Regression Analyses are done considering the relationship of the selected variables. Here the variables are not taken into consideration which have multi-collinearity effect and comparatively not reliable. Only seven (7) variables are taken into consideration for regression analyses and they are: i) Understanding of blended learning ii) best enhanced abilities done by blended learning, iii) Engagement of Blended Learning, iv) Improvement in teaching and learning, v) difficulties of blended learning, vi) encouragement of blended learning in Bangladeshi English Language Instruction, and vii) educational establishments to facilitate blended learning.

Table No. 4

Multiple Regressions Analyses

ANOVA when dependent variable: Understanding of blended learning

	<i>SS</i>	<i>DF</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	8.918	6	1.486	14.060	.000 ^b
Residual	9.832	93	.106		
Total	18.750	99			

Dependent variable : Understanding of blended learning, and predictors(constant) are i) best enhanced abilities done by blended learning ii) Engagement of Blended Learning, iii) Improvement in teaching and learning, iv) difficulties of blended learning, v) encouragement of blended learning in Bangladeshi English Language Instruction, and vi) educational establishments to facilitate blended learning.

Source: Data collected from the respondents of the structured questionnaire and assessed using SPSS, version-2024.

Understanding of blended learning is the dependent variable in the multiple regression analysis, and the results of the ANOVA test are shown in Table 4. Six predictors are included in the model: i) the best enhanced abilities attained through blended learning; ii) participation in blended learning; iii) improvements in teaching and learning; iv) challenges encountered during blended

learning; v) promotion of blended learning in Bangladeshi English language instruction; and vi) institution support for blended learning. With 93 degrees of freedom, the residual SS is 9.832, which is the variance that cannot be explained. The total SS for all 99 instances is 18.750. To determine if the regression model as a whole fits the data well, the computed F-statistic is 14.060. An F-value that is high in relation to the crucial F-value indicates that the model accounts for a substantial portion of the variation in the dependent variable. Additionally, the p-value (significance factor) is 0.000, which is below the conventional alpha threshold of 0.05. This suggests that the whole model is statistically significant and that the observed link between the dependent variable and the predictors is unlikely to be the result of chance.

Table No. 5
Coefficient Statistics of the selected data when dependent variable: Understanding of blended learning.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.260	.196		1.330	.187		
i	-.116	.033	-.385	-3.510	.001	.467	2.139
ii	.521	.060	.842	8.746	.000	.609	1.643
iii	-.108	.049	-.182	-2.199	.030	.819	1.221
iv	.006	.016	.037	.399	.691	.643	1.554
v	.070	.026	.216	2.707	.008	.889	1.125
vi	.074	.025	.231	2.936	.004	.915	1.093

Multiple R: 0.69, R Square: 0.48, Adjusted R Square: 0.44, Standard Error: 0.33, Observations: 99 where degree of freedom (6, 93). Dependent variable : Understanding of blended learning, and predictors(constant) are i) best enhanced abilities done by blended learning ii) Engagement of Blended Learning, iii) Improvement in teaching and learning, iv) difficulties of blended learning, v) encouragement of blended learning in Bangladeshi English Language Instruction, and vi) educational establishments to facilitate blended learning.

Source: Data collected from the respondents of the structured questionnaire and assessed using SPSS, version-2024.

A multiple regression study looking at determinants of comprehending blended learning is shown in Table 5. “Blended learning comprehension” is the dependent variable. Since the intercept ($B = 0.260$, $p = .187$) is not significant, there is no difference between zero and the baseline comprehension. Among the variables, “best enhanced abilities done by blended learning” exhibited a significant negative effect ($B = -0.116$, $p = .001$), indicating that poorer conceptual comprehension is linked to greater perceived skill gain. ‘Participation in blended learning’ was the most powerful positive predictor ($B = 0.521$, $p < .001$), suggesting that more involvement greatly increases comprehension. ‘Improvement in teaching and learning’ revealed a negative but significant correlation ($B = -0.108$, $p = .030$), suggesting that changes in perceived results may not provide a deeper comprehension of concepts. ‘Difficulties of blended learning’ did not significantly affect understanding, as evidenced by its non-significant effect ($B = 0.006$, $p = .691$). Support from educational institutions is crucial, as seen by the strong positive impacts of two predictors: promotion of blended learning in Bangladeshi English instruction ($B = 0.070$, $p = .008$) and facilitation by educational institutions ($B = 0.074$, $p = .004$). Multiple $R = 0.69$, $R^2 = 0.48$, and Adjusted $R^2 = 0.44$ indicate that the model is moderately strong, explaining 48% of the variation in knowledge. $VIF < 2.5$ indicates that multi-collinearity is not an issue, and the standard error is 0.33. Apart from the surprising results regarding skill development and challenges, the findings generally imply that institutional support and participation are essential for promoting comprehension of blended learning.

Result and Findings

According to the study, a number of important aspects affect how well blended learning works in Bangladeshi English classes. Better digital infrastructure was cited by a resounding 65% of respondents as the most crucial prerequisite for effective implementation out of all the criteria. According to this overwhelming majority, the success of blended learning is largely dependent on the availability of dependable internet, contemporary technology, up-to-date software, and robust digital platforms, according to educators, learners, and other stakeholders. Attempts to combine in-person and virtual learning run the danger of being unsuccessful or even detrimental in the absence of the required technology support. This outcome emphasizes how urgently the government and educational institutions must make significant investments in modernizing digital infrastructure in both urban and rural locations. In addition to infrastructure, 9% of participants highlighted the necessity of teacher training in blended learning. This research highlights the crucial role that teacher readiness plays in guaranteeing the success of blended methods, even if it accounts for a lesser percentage than infrastructural problems. Having the appropriate technologies is not enough to ensure successful blended learning; educators must also be able to manage virtual classrooms, integrate digital materials imaginatively, and use technology to promote active learning.

It is imperative that teacher training programs emphasize digital pedagogy, online engagement tactics, and blended assessment in order to optimize the advantages of this educational approach. The importance of student support services, as recognized by 11% of the respondents, is another noteworthy conclusion. This shows that the need to provide

students with sufficient assistance to succeed in a mixed learning setting is clearly understood. Numerous students may have difficulties with time management, learning platform navigation, and maintaining motivation in the absence of continuous in-person supervision. Students who get support services including academic advising, online mentorship, technical assistance, and digital literacy training can overcome these challenges and improve their learning results.

One important aspect mentioned by five percent of the respondents was increased internet connectivity. Even while this proportion is low, it is a genuine obstacle that many people, particularly those living in rural and semi-urban regions, must overcome. Without reliable and reasonably priced internet connectivity, blended learning turns into a premium option available primarily to kids from wealthier families. To provide fair educational opportunities for all students in Bangladesh, it is imperative to address the digital gap. It's interesting to note that 10% of participants are in favor of using machine learning to provide individualized education. This innovative and relatively new method points to a rising interest in using technology to adjust educational experiences to meet the requirements of specific students as well as to provide material. In addition to predicting areas of difficulty, machine learning can examine student performance trends and provide personalized learning courses. Accepting such innovations might greatly improve learning results and efficiency in the future, even if most Bangladeshi institutions are still in the early stages of growth.

According to the correlations in this table, a number of variables, such as the participant's title, level of expertise, and usage frequency, affect how well blended learning enhances English language skills. The associations also show that the conceptual parts of blended learning may be better understood by

younger or less experienced participants, even though some more seasoned instructors may utilize it more frequently. The digital divide and institutional support are also essential for maximizing blended learning's advantages. Based on regression analyses, the study discovered that while reported gains in teaching and learning and greatest boosted abilities showed substantial but unfavorable associations, participation in blended learning is the biggest positive predictor of comprehending blended learning. The promotion and institutional support of blended learning had a beneficial impact on comprehension. There was no discernible effect of the challenges encountered during integrated learning. There were no problems with multi-collinearity found, and the model accounted for 48% of the variation in comprehending blended learning. Although skill gains by themselves may not always result in deeper knowledge, involvement, encouragement, and institutional support are crucial in boosting understanding overall.

In conclusion, the results of the study show that a multifaceted strategy is crucial to the success of blended English teaching in Bangladesh. The nation's digital infrastructure has to be strengthened initially in order to provide a solid basis. After that, it's critical to provide thorough teacher training, student support systems, better internet access, and the thoughtful incorporation of cutting-edge technology like machine learning. Policymakers, technological companies, and educational institutions must collaborate to address these important issues. Blended learning cannot become a truly inclusive, sustainable, and successful educational approach in Bangladesh without a concerted and planned effort.

Recommendations

Bangladesh has to spend heavily in improving digital gadgets, online platforms, and internet connection, particularly in rural

and semi-urban regions, in order to boost blended learning. Digital classroom management, assessment techniques, and mixed pedagogical methodologies ought to be the main topics of teacher preparation programs. Digital literacy, mentorship, technical help, and online advising are all essential components of student support. Bridging the digital gap and guaranteeing equal access regardless of socioeconomic background requires the expansion of reasonably priced high-speed internet. Educational institutions ought to investigate adaptive technologies and machine learning in order to customize their teaching. For more in-depth understanding, future studies should include qualitative techniques like case studies and interviews with larger, more varied sample sizes. To evaluate blended learning's long-term effects on teacher development and student outcomes, longitudinal research is crucial. It is necessary to do further research on psychological and socioeconomic hurdles and compare various blended models (such as flipped and hybrid classrooms) in order to determine the most effective methods for teaching English.

Conclusion

The study found that the most crucial element for blended English teaching and learning in Bangladesh is digital infrastructure, which requires a holistic approach. The importance of trained teachers, student support systems, improved internet accessibility, and innovative AI applications cannot be overstated, even while technology forms the foundation. The correlation and regression analyses also show that user engagement and institutional support are critical to enhancing the understanding and effectiveness of blended learning. Without more comprehensive institutional support, however, skill development alone is insufficient. For blended learning to be implemented in Bangladesh in a way that is equitable, sustainable, and meaningful, policymakers,

educational leaders, IT businesses, and the general public must collaborate. Although the study provided insightful information, its small sample size, reliance on self-reported data, and neglect of psychological and socioeconomic factors point to the need for more research with a variety of samples and mixed methodologies, such as focus groups or interviews, to better understand blended learning in a range of Bangladeshi contexts.

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Investigating writers' attitudes toward software use in Bangla scholarly research works: A study in Pabna district, Bangladesh

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Abstract: English research extensively uses technology for error checking and citation, a support largely unavailable for Bangla research, hindering quality assessment against global benchmarks. This study explores Bangla-writing researchers' attitudes toward the use of online technology in their scholarly works, measure the marginal effects of using online technology in Bangla scholarly works, and identify essential contributors to the use of online technology. A questionnaire survey, employing convenience sampling, was conducted among students and teachers (n = 177) in Pabna city. To empirically assess the factors influencing writing quality, a logit model was employed. The results indicate that online technologies, workshop on use of online technologies, and natural language processing tools are statistically significant and have the potential to improve Bangla

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scholarly writing. However, realizing this potential necessitates addressing current challenges in the proper and efficient usage of available software and exploring the development and adoption of more tailored technological solutions for the Bangla scholarly community.

Keywords: Technology adoption, Software usage, Research quality, Logit model, Learners' attitudes.

Introduction

In the increasingly digital landscape of research, online technologies have emerged as indispensable tools, significantly enhancing the efficiency and quality of scholarly works. English-language researchers get benefit from a rich ecosystem of sophisticated tools designed to streamline every stage of the research process, including grammar and spell-checking, citation management, and plagiarism detection. These tools contribute significantly to the clarity, professionalism, and integrity of their published works. For instance, grammar and spell-checkers goes beyond simple error detection, offering nuanced suggestions for style, conciseness, and tone. This not only helps catch subtle linguistic errors but also significantly elevates the overall quality of writing, ensuring clarity and professionalism in published works. Furthermore, citation management software automates the often tedious and error-prone process of formatting bibliographies and in-text citations. This software drastically reduces the time researchers spend on administrative tasks and minimizes the potential for inaccuracies in referencing, a fundamental cornerstone of academic integrity. Crucially, plagiarism detection software provides a vital safeguard against academic misconduct. The extensive development and refinement of these tools in English

reflect the language's dominance in global academic publishing, fostering a highly effective support system for its researchers.

In stark contrast, the lack of robust technological assistance poses a critical challenge for Bangla-writing researchers, despite their significant intellectual output within Bangladesh and beyond. While Bangla-writing researchers contribute to a wide array of important topics through their work, they often lack the same level of digital support. Recognizing this critical gap, we explore the attitudes of Bangla-writing researchers toward the use of online technology in their work. Understanding their perception is a crucial first step in developing and implementing language-specific tools. Such tools are essential to bridge online-supported writing software and empower Bangla-writing researchers to achieve global benchmarks of research quality and integrity.

Identification of Research Subject

In today's volatile, uncertain, complex, and ambiguous (VUCA) society, rigorous research has become indispensable. It acts as a crucial driver of societal and civilisational progress by exploring unanswered questions, thereby enhancing human well-being and generating knowledge. The effective dissemination of these research findings relies heavily on the principles of scholarly works. Producing high-quality scholarly works, encompassing various formats like journal articles, books, and reports, necessitates a value-free, unbiased, and scientifically structured approach, adhering to a consistent format and style that ensures clarity and precision.

Maintaining the integrity and quality of scholarly works hinge on several critical elements. Manuscripts must be meticulously prepared and free from errors such as misspellings, plagiarism,

and improper paraphrasing. Moreover, the consistent and accurate application of established citation and referencing styles – the American Psychological Association (APA), Modern Language Association (MLA), Harvard, Chicago, Oxford, Turabian, Modern Humanities Research Association (MHRA), Institute of Electrical and Electronics Engineers (IEEE), International Organisation for Standardisation (ISO) 690, Gosudarstvennyy Standard (GOST), Slovenski Institut za Standardizacijo (SIST) 02, and Vancouver- is paramount. Writing high-quality research papers is a complex endeavor, fraught with potential pitfalls ranging from misspellings, grammatical errors, verbose language and inconsistent citations to plagiarism. These impediments can significantly detract from the clarity, credibility, and overall impact of scholarly works.

Misspellings and grammatical errors represent foundational yet highly impactful flaws in a manuscript. While seemingly minor, these can severely undermine a manuscript's professionalism and the author's credibility. As Gopen and Swan (1990) highlight "the reader's initial impression of a text is often heavily influenced by its surface features" (54) meaning even a few errors can create an impression of carelessness or lack of rigor. Such errors distract readers, obscure meaning, and can even alter the intended message, making it difficult for the audience to focus on the research's substantive content. For instance, a misplaced comma or a misused homophone can completely change the interpretation of a sentence, leading to confusion and miscommunication of complex scientific ideas.

Beyond simple errors, verbose language poses another significant challenge. Research papers are fundamentally designed to convey information precisely and concisely. Overly wordy sentences, redundant phrases, and unnecessary jargon can render a paper dense and difficult to read, effectively

burying key findings and arguments in excessive prose. Strunk and White (2000) famously advise “omit needless words” (23) emphasizing that conciseness is a hallmark of good writing. When authors use too many words to express an idea, it not only wastes the reader’s time but also dilutes the impact of their research, making it less engaging and harder to digest. This often leads to readers skimming or abandoning the paper, reducing the paper’s potential influence within the academic community.

Adding to the integrity challenge, inconsistent citations can significantly diminish a paper’s quality and credibility. Academic integrity demands that all sources be accurately and consistently acknowledged according to a specific citation style. Inconsistencies – such as missing citations, incorrect formatting, or a mix of different styles – create confusion for readers trying to locate the original sources. More critically, they raise questions about the author’s attention to detail and their commitment to proper academic protocols. As the Purdue Online Writing Lab (n.d.) frequently emphasizes, proper citation is essential for avoiding plagiarism and for giving credit to sources. When citations are inconsistent, it not only makes verification difficult but also implies a lack of rigor in the research process itself, potentially undermining the validity of the paper’s claims.

Plagiarism stands out as a severe form of research and scholastic misconduct. Often linked to replication and imitation, plagiarism has long been recognized as the “theft of intellectual property” (Ibrahim et al., 2025). The advent of easily accessible online resources, extensive databases, advanced telecommunications, and vast library collections has revolutionized research. Yet, this very accessibility, coupled with the widespread availability of diverse information sources, has inadvertently amplified the problem of plagiarism for publishers, academics, and researchers. Drisko (2023) defines plagiarism

through various actions, including submitting another's work as one's own and using ideas or words without proper attribution. Specific examples include failing to use quotation marks for direct quotes, misrepresenting source information, altering words while keeping the original sentence structure without citation, and extensively copying material even with citation. Plagiarism manifests in multiple forms, each posing a unique threat to academic integrity, such as direct copying, presenting another's idea as original, self-plagiarism, improper paraphrasing, and misuse of artistic works or computer code (Mulenga & Shilongo, 2024).

A fundamental challenge for writers in producing plagiarism-free research papers arises from the multifaceted nature of plagiarism itself, encompassing accidental, unintentional, intentional, AI-driven, and self-plagiarism. Furthermore, insufficient knowledge of proper citation and referencing techniques significantly elevates the risk of plagiarism, thereby compromising the merit and quality of scholarly works globally.

To mitigate misspellings, grammatical errors, verbose language and inconsistent citations, and plagiarism free writing practices, English language research often benefits from substantial technological support, including grammar and spelling checkers (e.g., Grammarly, Ginger), AI-driven writing detection software (e.g., Quetext AI Detector, Zero GPT), and plagiarism/paraphrasing detection tools (e.g., iThenticate, Turnitin). Citation and referencing software (e.g., Mendeley, Zotero) further aids in accurate attribution.

While robust technological solutions exist to mitigate common issues in academic writing, their availability and sophistication are not uniform across all languages, creating a notable digital divide, particularly for Bangla-writing researchers. Specifically,

comprehensive technological assistance - encompassing tools for grammar and spell-checking, citation management, and plagiarism detection - is often scarce for Bangla-written research papers. This disparity is particularly significant given the wide range of important topics explored by Bangla writing researchers and documented in Bangla. Consequently, the limited availability of robust technological tools makes it considerably more challenging for Bangla-writing researchers to detect plagiarism, ensure linguistic accuracy, and ultimately uphold the quality of their manuscripts according to ethical, scientific, and global standards. This unequal access to essential tools creates a significant barrier to equitable participation and recognition in the global academic landscape. In this viewpoint, it is imperative to introduce online technology developed based on the preferences and perceptions of Bangla-writing researchers. Such tailored solutions are crucial not only to help maintain global standards in Bangla writing but also to facilitate the dissemination of unexplored facts and findings from ongoing and future research works in the Bangla language to international readers, researchers, and policymakers.

Objectives of the research

The objectives of the study are to explore Bangla-writing researchers' attitudes toward the use of online technology in their scholarly works, measure the marginal effects of using online technology in Bangla scholarly works, and identify essential contributors to the use of online technology.

Research rationale

Although research on plagiarism and academic integrity is widespread, studies specifically examining the unique

challenges within the Bangla language academic writing context remain less common, particularly concerning the scarcity of online technological support. This study addresses this under-researched area by highlighting the distinct difficulties faced by Bangla writing researchers due to the limited availability of language-specific tools crucial for ensuring academic integrity. Furthermore, it explicitly links this scarcity of online technological resources to the potential compromise of ethical standards and the overall quality of Bangla scholarly works. Consequently, this work could pave the way for future research focused on exploring potential solutions to these identified challenges, such as the development of Bangla-specific plagiarism detection software, the implementation of enhanced training on citation practices within Bangla academic settings, and the adaptation of existing online technologies for the Bangla language.

Research Methodology

Study area

Pabna city presents a compelling study site, primarily due to its robust and diverse educational ecosystem. This thriving academic environment is home to several key institutions, each contributing uniquely to the intellectual landscape. Among these are Pabna University of Science and Technology (PUST), Government Edward College (GEC), Shahid Bulbul Government College (SBGC), Pabna Government Women College (PGWC), Pabna College, Shaheed M Monsur Ali College, Imam Ghazali College, and Islamia College.

Each of these institutions has dedicated departments across a spectrum of disciplines, fostering the intellectual development of students from undergraduate to doctoral levels. A defining characteristic of the academic culture within these departments

is the active involvement of both faculties and students in research. These scholarly pursuits culminate in a variety of Bangla publications and research outputs. These include annual magazines showcasing departmental activities, journal articles presenting focused research findings, term papers exploring specific topics, and comprehensive thesis or dissertations for MPhil and Ph.D. research conducted both within and outside the district. Furthermore, the development of concept notes provides a preliminary platform for outlining research ideas. Significantly, the creation of these scholarly works largely adheres to established traditional writing conventions.

Data collection technique

This study employed a quantitative research method (QRM) design to gain a comprehensive understanding of students', teachers', and researchers' attitudes towards online technology in scholarly writing. Specifically, the research integrated quantitative survey data obtained through questionnaire.

For clarity and ease of understanding, a two-page, semi-structured questionnaire was utilized to gather comprehensive insights into respondents' perceptions and preferences regarding proposed online technologies for Bangla scholarly writing. This questionnaire, originally formatted in English, was meticulously translated into Bangla and administered to respondents during face-to-face interviews. The questionnaire was divided into two main parts. Part one covered general information. This section collected demographic data from respondents, including their age (measured in years), gender (coded as 1 for male and 0 for female), educational attainment (measured as stage of educational level), and professional status (coded as 1 for teacher and 0 for student). Part two covered online technologies and research writing tools. This section explored respondents'

engagement with and utilization of specific software and applications relevant to scholarly writing. These tools included grammar and spelling checkers, plagiarism checkers, AI-driven concept detectors, citation and referencing software, natural language processing (NLP) tools, and workshop on use of online technologies in Bangla scholarly works. Responses to most of the survey questions in this part were captured using dummy variables on an ordinal scale, with “agree” coded as 1 and “disagree” coded as 0.

Sampling and survey techniques

This study investigated the perception of online technology and software usage in scholarly works among 177 randomly selected respondents from PUST and GEC in the Pabna district. Data were collected through on-site, convenient surveys conducted between November 13th and 18th, 2023.

While efforts were made to ensure random selection of respondents through convenient sampling technique, the possibility of sampling error exists. To mitigate this, the surveys were administered by the authors and ten trained enumerators (students of GEC). Prior to participation, all respondents were informed about the study’s aim, rationale, and objectives.

Despite lacking prior experience with citation, referencing, and plagiarism software, a significant majority of respondents indicated a desire to use these tools when writing scholarly works, believing it would increase the scientific rigor of their output.

Model specification

We define our outcome variable, the adoption of online technology for scholarly writing in Bangla (y_i), as a binary

variable. It is coded as 1 if respondent i expresses willingness to adopt online technology, and 0 otherwise. The general form of the latent variable regression model underlying our analysis is:

$$y_i^* = x_i\beta + \epsilon_i \quad (1)$$

Where y_i^* represents the unobservable latent variable indicating the propensity to adopt online technology for scholarly writing, x_i is a vector of explanatory attributes for respondent i , β is a vector of parameters to be estimated, and ϵ_i is the error term.

Since y_i^* is unobservable, we instead observe the binary outcome defined as:

$$y_i = 1 \text{ if } y_i^* > 0$$

$$y_i = 0 \text{ if } y_i^* \leq 0$$

The probability that a respondent is willing to adopt online technology for scholarly writing in Bangla is thus:

$$P(y_i = 1) = P(y_i^* > 0) = P(x_i\beta + \epsilon_i > 0) = P(\epsilon_i > -x_i\beta) \quad (2)$$

If the distribution of the error term is symmetric around zero, we can write:

$$P(\epsilon_i > -x_i\beta) = 1 - F(-x_i\beta) = F(x_i\beta) \quad (3)$$

Where F is the cumulative distribution function (CDF) of the error term.

For the logit model, we specifically assume that the error term follows a logistic distribution. The CDF of the logistic distribution is given by $F(z) = 1 + \exp(-z)$. Therefore, the probability that the i^{th} respondent is willing to adopt online technology for scholarly writing in Bangla is:

$$P(y_i = 1) = \frac{\exp(x_i\beta)}{1 + \exp(x_i\beta)} \quad (4)$$

The term $x_i\beta$ is a linear function of n explanatory variables (x_{ij}), and their corresponding parameters (β_j):

$$x_i\beta = \beta_0 + \beta_{1x_{i1}} + \beta_{2x_{i2}} + \beta_{3x_{i3}} + \dots + \beta_{nx_{in}} \quad (5)$$

If $p_i = P(y_i = 1)$ be the probability that the i^{th} respondent is willing to adopt software. Then the probability of not adopting software ($1 - p_i$) is:

$$P(y_i = 0) = 1 - p_i = 1 - \frac{\exp(\hat{x}_i\beta)}{1 + \exp(\hat{x}_i\beta)} = \frac{1}{1 + \exp(\hat{x}_i\beta)} \quad (6)$$

The odds ratio then:

$$\frac{P(y_i=1)}{P(y_i=0)} = \frac{p_i}{1-p_i} = \exp(\hat{x}_i\beta) \quad (7)$$

Taking the natural logarithm of the odds ratio yields the logit model:

$$\ln\left(\frac{p_i}{1-p_i}\right) = \hat{x}_i\beta \quad (8)$$

The marginal effect for a continuous explanatory attribute x_{ik} can be calculated using the derivative:

$$\frac{\delta P(y=1)}{\delta x_{ik}} = \frac{\exp(\hat{x}_i\beta)}{(1 + \exp(\hat{x}_i\beta))^2} \beta_k = P(y_i = 1)[1 - P(y_i = 1)]\beta_k \quad (9)$$

This derivative provides an approximation of the change in probability for a small change in the continuous variable. For a dummy variable representing a change from 0 to 1, the marginal effect is the discrete change in probability:

$$P\left(y_i = \frac{1}{x_{ik}} = 1\right) - P\left(y_i = \frac{1}{x_{ik}} = 0\right) \quad (10)$$

To understand how changes in the explanatory attributes of interest influence a respondent's likelihood of adopting online technology for scholarly writing in Bangla, we calculated marginal effects, adjusting the method appropriately for continuous and dummy variables. When considering policy implications or decisions, we adopted a conventional significance level based on the p -value, such as a p -value of 1% (≤ 0.01)*, 5% (≤ 0.05)** and 10% (≤ 0.10 ***). All descriptive statistics and the logit regression model results were estimated using STATA 18.5 software.

Literature Review

Role of online technology in enhancing scholarly writing: A global perspective with specific relevance to Bangla

The advent and pervasive integration of online technology have undeniably ushered in a transformative era for academic writing globally (Mahdi, 2023). This revolution has fundamentally reshaped the landscape of scholarly output, leading to significant enhancements in both the quality and accessibility of research findings (Mogaji, 2024). Indeed, online technology has become an indispensable ally for researchers and academics worldwide, streamlining intricate organisational tasks, facilitating meticulous editing processes, and enabling wider and more efficient dissemination of knowledge (Mohanty et al., 2024). Sultana (2022) astutely argues that this transformative power holds particular significance for languages such as Bangla, where the integration of digital tools offers potent solutions to overcome unique linguistic complexities and address inherent resource limitations that might otherwise impede scholarly progress. Specifically, the development and strategic application of language-specific technological instruments – including sophisticated spell checkers capable of recognizing the nuances of Bangla orthography, advanced grammar correction software tailored to its grammatical structures, and robust plagiarism detection systems designed to identify textual similarities in Bangla – have played a pivotal role in bolstering the accuracy, integrity, and overall quality of Bangla scholarly writing. Consequently, these tools not only aid in refining the linguistic aspects of research papers but also contribute to upholding ethical standards within the academic community (Khalifa & Albadawy, 2024; Silver et al., 2023).

Challenges in Bangla scholarly writing: Navigating linguistic nuances and technological gaps

Despite the burgeoning influence of online technology and its considerable potential to elevate Bangla scholarly writing, the field continues to grapple with distinct and persistent obstacles. A primary and significant challenge stems from the limited availability of highly sophisticated NLP tools specifically engineered to comprehend and process the intricate grammatical rules, morphological variations, and semantic subtleties inherent in the Bangla language (Khurana et al., 2023; Khan et al., 2023). This scarcity of advanced NLP capabilities, as Zhao (2024) reported, inherently hinders the development of more effective writing assistance tools. Furthermore, this technological limitation is compounded by the relative absence of universally accepted and rigorously enforced standardized academic writing conventions within the Bangla scholarly community, a point consistently argued by Rahman et al. (2024). The lack of clear guidelines regarding formatting, citation styles specific to Bangla resources, and overall structural expectations can lead to inconsistencies and a diminished sense of uniformity in scholarly outputs (Aktar & Islam, 2023). Adding to these complexities is the persistent digital divide, which affects access to technology and reliable internet connectivity in certain segments of the Bangla-speaking academic community. This disparity, coupled with insufficient training and support in the effective utilisation of available technological tools (Timotheou et al., 2023), significantly impedes the widespread adoption and optimal use of these resources in routine academic practices. Ultimately, these interconnected challenges collectively create substantial barriers that can hinder the production and dissemination of high-quality Bangla scholarly works.

Technological innovations for Bangla: Progress and future directions

In recent years, there have been encouraging and noteworthy technological innovations specifically aimed at addressing the unique challenges faced by Bangla scholarly writing (Rahman et al., 2024). The development of Bangla Optical Character Recognition (OCR) systems, which enable the conversion of scanned or printed Bangla text into digital formats, and the creation of machine translation tools designed to translate between Bangla and other languages, have significantly facilitated the digitalisation and accessibility of Bangla textual resources (Sen et al., 2022). These advancements have opened up new avenues for research and knowledge sharing. In this context, the insightful work of Iqbal et al. (2020) strongly emphasized the critical importance of a multi-pronged approach involving the development of even more advanced and nuanced NLP tools tailored specifically for the Bangla language, the proactive promotion of digital literacy among researchers and academics to enhance their ability to leverage technology effectively, and the crucial establishment of policy-level support within academic institutions to foster a culture of technology integration in all aspects of scholarly works. Such concerted efforts are deemed essential for cultivating a truly technology-centric ecosystem that supports the production of high-quality Bangla scholarly writing (Kayes, 2024). Furthermore, the promising emergence of innovative platforms that seamlessly integrate Bangla typing software with a range of academic writing assistance features, such as contextual vocabulary suggestions and basic grammatical checks, demonstrates considerable potential in bridging the existing gap between the theoretical possibilities offered by technology and the practical application of these tools in the daily writing practices of Bangla scholars (Mamun et al., 2024).

Global perspectives and local adaptations: Contextualizing technology

Drawing upon a wealth of research conducted across the globe, it becomes evident that the effective integration of technology in any specific context necessitates a strong emphasis on contextualisation (Nguyen & Tull, 2022). This means that technological solutions must be carefully adapted and tailored to meet the unique local requirements, taking into account the specific linguistic features, cultural nuances, and established academic practices of the target language and community (Galla, 2016). For Bangla scholarly writing, this principle underscores the critical need to move beyond simply adopting generic technological tools developed for other languages (Islam et al., 2021). Instead, it necessitates a focused effort on adapting global best practices in academic writing technology to align seamlessly with the intricate linguistic structures, idiomatic expressions, and cultural sensitivities inherent in the Bangla language (Rahman et al., 2024). To ensure the successful, meaningful, and sustainable integration of technology in Bangla scholarly writing, collaborative and interdisciplinary partnerships among linguists who possess deep understanding of the language, technologists who can develop and adapt relevant tools, and educators who can facilitate effective training and adoption are absolutely indispensable (Zhong et al., 2024). Such collaborations can pave the way for the creation of truly effective and culturally appropriate technological solutions that empower Bangla scholars and enhance the global reach and impact of their research.

Given the limited scholarly attention to the unique difficulties and the scarcity of technological support for academic writing

in the Bangla language, particularly concerning plagiarism and academic integrity, our study contributes to minimizing this research gap by investigating the extent of the problem and identifying potential solutions.

Research Theoretical Framework: Theory of Change

While the theory of change (ToC) has garnered significant attention in recent decades, its foundations were laid much earlier, representing an evolution of thinking in program planning and evaluation over the past half-century (Khan et al., 2021). The emergence of ‘Program Theory’ in the 1960s marked a crucial step, emphasizing the need for program planners to clearly articulate the connections between inputs and intended outcomes, along with the underlying assumptions driving the program’s mechanisms (Miao & Nduneseokwu, 2025). However, the term ‘Theory of Change’ as it is widely understood today gained prominence in the 1990s through the work of the Aspen Institute Roundtable on Community Change (Hatumimana & de Dieu Dushimimana, 2024). This group addressed the complexities of evaluating social change initiatives where goals and pathways were often ill-defined.

This historical context, highlighting the importance of clearly articulated pathways to change, directly motivates our current research. We observe that technology use in Bangla written research work in Bangladesh is a relatively new and complex undertaking. The challenges posed by copy-pasting, typos, grammatical errors, and improper referencing significantly impede the quality of scholarly works. Recognizing this, writers, scholars, and policymakers in the context of current Bangla scholarly practices widely acknowledge the potential of

supportive technologies to enhance writing quality and prevent plagiarism. We posit that a ToC framework can offer valuable guidance to native researchers in various countries, including Bangladesh, to elevate the quality of their written work.

In its simplest form, a ToC explains the ‘why’ ‘who’ ‘how’ and ‘what’ of a program’s success. For the purpose of our study, we define a ToC as a set of online technology-supported writing initiatives undertaken by researchers. This framework explicitly outlines the incremental steps leading to plagiarism-free writing and establishes the link between these activities and the broader outcomes of the intervention.

It’s important to acknowledge the diverse perspectives surrounding the concept and application of a ToC. These range from viewing it as a purely technical tools to understanding it as a more nuanced approach for navigating change in unpredictable environments. Our study adopts the latter perspective, assessing the perceptions of researchers engaged in Bangla writing towards the integration of technology in their research. This can be viewed as an adaptive process where researchers’ experiences and feedback shape the implementation and refinement of technology-supported writing initiatives.

Building upon Stein and Valters’ (2012) comprehensive review of practitioner-oriented literature, we recognize four fundamental purposes of a ToC: strategic planning, monitoring and evaluation, describing program activities and achievements, and fostering learning. While acknowledging the importance of all four, our study strategically concentrates on three key areas: strategic planning, impact assessment (encompassing the monitoring and evaluation of results), and describing empirically supported outcomes.

Our study covers (i) strategically plans for the introduction and integration of various online technologies to support Bangla written research work, including the research carried out by researchers in the Bangla language. This strategic plan incorporates a range of attributes, including grammar and spelling checkers, AI-driven concept checkers, plagiarism detection tools, citation and referencing software, NLP tools, and workshop on use of online technologies in Bangla scholarly works tailored for research projects and higher studies; (ii) assess the impact of online technology adoption on Bangla scholarly works by providing a clear and empirically supported description of the observed effects and changes resulting from the implementation of these technologies; and (iii) justify, based on the assessed impacts, the potential role of technology adoption in informing policy design aimed at enhancing the quality and integrity of Bangla scholarly output. Our strategic selection of these technological attributes, informed by a review of over 60 journal articles published between 2019 and 2025, is intended to provide practical guidelines for promoting good research practices (see Fig. 1 for more details).

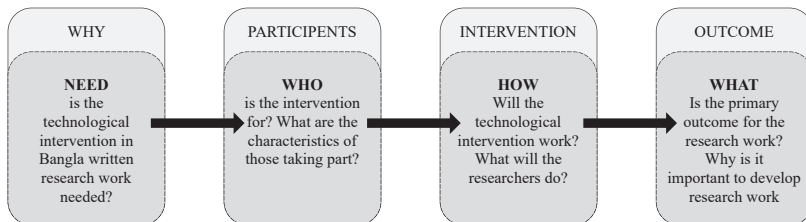


Figure 1 Framework for Theory of Change

Source: Prepared by the authors, 2025

Results and Research Findings

Descriptive statistics

Based on the responses of 177 individuals who shared their perceptions regarding our proposed attributes, we calculated the socio-demographic (SD) characteristics of the respondents. The analysis includes age and educational attainment, detailing the maximum, minimum, mean, and standard deviation for each variable.

The ages of the respondents ranged from 20 to 51 years, with a mean age of 25.30 years and a standard deviation of 12.50 years, indicating a moderate spread in the age distribution. Educational attainment, measured on a scale where higher values denote more advanced education, ranged from 16 to 20, with a mean of 17.41 and a standard deviation of 5.04. This suggests that the respondents generally had a high level of education, with some variability within the group.

In terms of occupation and academic engagement, 12 respondents (6.77%) were teachers, and 4 respondents (2.26%) were actively involved in MPhil and Ph.D. research at leading public universities in Bangladesh. The majority of the respondents, 161 individuals (90.96%), were students at the graduate and undergraduate levels. The gender distribution of the sample consisted of 58 female respondents (32.77%) and 119 male respondents (67.23%). A detailed compilation of the descriptive statistics for these SD characteristics can be found in Table 1.

Table 1 Descriptive statistics ($n= 177$)

Variable	Maximum	Minimum	Mean	Standard deviation
Age	51	20	25.30	12.50
Educational attainment	20	16	17.41	5.04

Source: Survey data, 2023

Econometric model estimation

Table 2 presents the econometric findings derived from a logit regression model, where we assume all proposed attributes are random parameters following a normal distribution. To ensure the robustness and reliability of this model, we evaluated several key indicators. Firstly, a Log-likelihood (LL) value approaching 0 is considered indicative of a good model fit (Louviere et al., 2000). Secondly, Pseudo R-squared values exceeding 0.2 suggest a satisfactory level of explanation (Rouwendal & Meijer, 2002). Finally, the accurate estimation of these parameters is critically dependent on the implementation of appropriate coding strategies, including numerical attributes, effects coding, and dummy coding.

Table 2 Logit model estimates of parameters

Attributes	Coefficient	Standard error	$P > Z $
grammar and spelling checkers	0.648*	0.326	0.001
plagiarism checkers	0.136**	0.046	0.030
AI-driven concept checkers	0.007	0.006	0.079
citation and referencing software	0.016***	0.159	0.091
natural language processing tools	0.007	0.002	0.185

workshop on use of online technologies	0.010*	0.386	0.000
constant	0.337*	0.471	0.000
Observations		177	
Log likelihood		-67.051872	
Pseudo R ²		0.3770	
P>chi ²		0.000	

Note. *, ** and *** indicate statistically significant at 1%, 5% and 10% respectively.

Source: Survey data, 2023

The logit model results indicate that the majority of the proposed attributes are statistically significant at conventional levels and exhibit the anticipated signs, with the exception of AI-driven concept checkers and NLP tools. For instance, the positive coefficient of grammar and spelling checkers suggests that, holding other factors constant, scholarly works with strong grammar, the absence of typos, and appropriate spelling is less likely to be chosen. This finding aligns with the author guidelines of journal articles and other scholarly publications worldwide, which emphasize these elements as necessary for standard writing in any language. Furthermore, the positive coefficients of the other statistically significant attributes imply that incorporating these features into Bangla scholarly works enhances their perceived credibility.

We measured the marginal effects to better understand the impact of a one-unit increase in each statistically significant attribute on the outcome variable. Table 3 outlines these marginal effects for all explanatory variables except the insignificant attributes, such as AI-driven concept detector and NLP tools.

Table 3 Marginal effects of the explanatory variables

Attributes	dy/dx	Standard error	Z	$P > Z $
grammar and spell checkers	0.028***	0.053	2.38	0.00
plagiarism checkers	0.033*	0.033	1.18	0.07
citation and referencing software	0.286***	0.211	0.13	0.36
workshop on use of online technologies	0.199**	0.193	0.35	0.32
<i>Constant</i>	0.030	0.073	1.16	0.000

Note. *, ** and *** indicate statistically significant at 1%, 5% and 10% respectively.

Source: Survey data, 2023

Marginal effects quantify the change in the predicted probability of a scholarly works being chosen for a one-unit increase in the respective explanatory variable, while holding all other variables constant. The marginal effect of grammar and spell checkers is 0.028. Given that a higher value of grammar and spell checkers likely indicates poorer grammar, spelling, and clarity, this suggests that a one-unit more use in grammar and spelling checkers is associated with a 0.028 increase in the probability of the work being chosen. The marginal effect for plagiarism checkers 0.033. Assuming a higher value of plagiarism checkers represents a clearer structure, a one-unit more use in plagiarism leads to a 0.033 increase in the predicted probability of the scholarly works being chosen, implying that better-organized works are slightly more likely to be selected. The marginal effect for citation and referencing software is 0.286. If a higher citation and referencing software value reflects greater clarity in the research's significance, this suggests that a one-unit more use in citation and referencing software increases

the likelihood of the work being chosen by 0.286, emphasizing the importance of clearly articulating the research's impact. Workshop on use of online technology in Bangla scholarly works has a marginal effect of 0.199. If a higher value of such workshop indicates a clearer presentation of the research workflow, a one-unit increase in pww increases the probability of the work being chosen by 0.199, suggesting that well-defined methodologies are favored. Finally, the marginal effect of the constant term is 0.030. This represents the predicted change in probability when all other explanatory variables are equal to zero.

The observation that “a higher usage increases the likelihood of a work being chosen” for grammar and spelling checkers software appear counterintuitive at first glance. This seems to contradict the well-established emphasis within academic literature, as highlighted by Strunk & White (2000), Becker (2020), and Shi (2021), on the fundamental importance of clear and error-free writing for effective scholarly communication, accurate idea transmission, and author credibility. Without a clear understanding of how the use of this software was presented to respondents, interpreting this finding remains speculative. Perhaps higher usage indicates a greater effort towards refinement, even if errors still persist, or it might reflect a perception that using such tools signifies diligence. Further investigation into the *context* of this software usage, rather than just the frequency, would be beneficial to reconcile this finding with established norms.

In contrast, the positive association of plagiarism checkers software usage with the likelihood of a work being chosen strongly aligns with the increasing emphasis on academic integrity within higher education and scholarly publishing. As supported by observational studies and the work of Mulenga and Shilongo (2024), Macfarlane et al. (2014), and Drisko (2023),

originality and proper attribution are cornerstones of research ethics. The perceived value of using plagiarism detection tools likely reflects an understanding of their role in upholding these standards.

Similarly, the positive influence of citation and referencing software underscores the critical role of proper citation in academic work. Lindahl and Grace (2018) and Razlan et al. (2024) rightly point out that accurate and consistent referencing is essential for acknowledging sources, preventing plagiarism, building upon existing knowledge, and enhancing research transparency and credibility. The finding that higher usage of such software correlates with a greater likelihood of a work being chosen suggests that the perceived focus on or quality of citation and referencing, potentially facilitated by these tools (Aksnes et al., 2019; Stremersch et al., 2007), is indeed valued.

The positive association between participation in writing workshops and the likelihood of a work being chosen suggests that the skills honed in these workshops are recognized as valuable. Morss and Murray (2001) note that these workshops often aim to improve clarity, argumentation, and structure – all crucial elements of effective scholarly communication. If higher participation signifies greater engagement with these developmental activities, this finding reinforces the importance of investing in writing skills.

Finally, the positive, albeit smaller, impact of access to comprehensive software usage training highlights the growing importance of technological proficiency in the contemporary academic landscape (Green et al., 2005; Willis et al., 2010; Dixit & Sinha, 2022). While traditional academic writing literature might not always directly address software skills, the increasing integration of various tools in research, writing, and

dissemination suggests that the ability to effectively utilize these resources contributes positively to the perceived quality and presentation of scholarly works.

While the finding regarding grammar and spelling checkers software warrants further exploration, the positive associations with plagiarism checkers, citation software, writing workshops, and software training collectively paint a picture of evolving priorities in evaluating scholarly works. These priorities increasingly emphasize not only the content itself but also the integrity of the research process, the rigor of citation practices, and the effective utilisation of tools that contribute to the overall quality and presentation of academic output.

Conclusions and Recommendations

The research reveals a strong enthusiasm among researchers, teachers, and students for integrating online technological tools into their Bangla scholarly writing. This positive outlook persists despite limited prior experience with specific software. The significant results underscore this sentiment and its potential.

The high willingness to adopt grammar and spell checkers tools directly aligns with the expressed enthusiasm for enhancing writing quality. The research suggests that respondents perceive these tools as crucial for improving the accuracy and professionalism of their Bangla scholarly work. Likewise, the strong interest in plagiarism checkers highlights a commitment to academic integrity and the production of original academic and research work. This aligns with the overall goal of boosting the perceived credibility and quality of scholarly work, as originality is a fundamental aspect of scholarly rigor. The eagerness to utilize citation managers directly supports the aim

of producing high-quality academic work. Proper citation and referencing are essential for academic credibility and avoiding plagiarism, further reinforcing the notion that these tools can significantly enhance the perceived quality of scholarly output. Workshops enhance capacity building in writing Bangla scholarly works is a pivotal result. This demonstrates a direct link between structured learning interventions and improved abilities in utilizing these tools. It reinforces the idea that even with limited prior experience, targeted training can effectively bridge knowledge gaps and empower users to leverage online technologies for better scholarly writing. Based on the estimated results, we recommend the following strategies to enhance Bangla scholarly writing.

- i. Invest in the development or adaptation of online grammar and spell checkers, plagiarism checkers, and citation managers specifically designed for the nuances of the Bangla language. This will directly address the expressed need and maximize the effectiveness of these tools for Bangla scholarly writing.
- ii. Implement and regularly conduct workshops on the effective use of online technological tools for Bangla scholarly writing across educational institutions in Bangladesh. These workshops should be practical, hands-on, and cover the functionalities of grammar/spell checkers, plagiarism checkers, and citation/referencing software.
- iii. Incorporate the use of online scholarly writing tools into the curriculum for relevant academic programs (e.g., research methodology, academic writing courses) from an early stage. This will normalize their use and build foundational skills among students.

- iv. Universities and research institutions should establish dedicated support centers or helpdesks to assist researchers, teachers, and students with technical issues and best practices related to online scholarly writing tools.
- v. Promote a broader culture of digital literacy within academic communities, emphasizing the benefits of technology for enhancing research productivity, quality, and ethical conduct.
- vi. Explore partnerships with software providers or institutional subscriptions to make advanced versions of grammar checkers, plagiarism detectors, and citation managers more accessible and affordable for the academic community in Bangladesh.

However, a major hurdle identified is the scarcity of robust online technological tools specifically designed for Bangla scholarly works. This lack of language-specific support poses a substantial challenge to upholding academic integrity and ensuring the quality of Bangla scholarly works meets ethical, scientific, and global standards. To address these issues, the study strongly recommends that academic institutions and technology developers collaborate to develop and promote Bangla-specific software, particularly for grammar and spelling checks, plagiarism detection, and citation management. Furthermore, educational and research institutions should implement comprehensive workshop programs. These programs should focus on effectively utilizing both existing and new online technologies for Bangla scholarly writing, while also promoting a strong culture of academic integrity through technology integration.

It is important to acknowledge that this study's findings are primarily based on data from the Pabna district, which may limit

their generalizability to other parts of Bangladesh or broader academic contexts. Additionally, the reliance on self-reported willingness to adopt software, rather than actual usage data, suggests a potential gap between stated intentions and real-world behavior that warrants further investigation.

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The Importance of English Language Proficiency for IT Professionals: A Quantitative Study in Bangladesh

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Abstract: The swift expansion of the global gig economy has highlighted the essential need of English language skills for freelancers, especially in non-English-speaking nations such as Bangladesh. This quantitative study examines the impact of English proficiency on the success of Bangladeshi IT freelancers by analysing its link with employment options, communication efficacy, and revenue potential. A structured questionnaire was delivered to 104 intentionally selected IT freelancers through an online survey conducted via Google Forms. The questionnaire had Likert-scale items, and the gathered data were analysed with SPSS (version 26) to identify trends, frequencies, and connections. The findings reveal that a substantial majority of participants see English ability as essential for obtaining lucrative projects, bolstering confidence in customer interactions, and mitigating challenges in proposal composition and auditory understanding.

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Statistical evidence indicates a robust correlation between advanced English proficiency and enhanced competitiveness on global freelancing platforms. Moreover, the majority of participants endorsed the establishment of specialised language training programs and championed government-backed measures to rectify skill deficiencies. Notwithstanding certain problems associated with language anxiety and restricted speaking fluency, the overall findings identify English as a crucial element in achieving success in freelancing. The study indicates that systematic enhancements in English language education and policy initiatives are crucial to empower Bangladeshi freelancers in the increasingly English-centric global digital economy.

Keywords: English, Language, Freelancing, Bangladeshi IT Professionals, Communication Skills.

Introduction

Bangladesh has witnessed a substantial increase in its freelancing and outsourcing industries, establishing itself as a prominent participant in the global digital economy. In 2023, around 1.05 million freelancers in the nation produced approximately \$1 billion in yearly remittances (Hasan, 2023). New research by the Oxford Internet Institute (OII) indicates that Bangladesh possesses the second-largest population of online labourers, accounting for 16 per cent of the labour share (Dhaka Tribune, 2017). This significant development may be ascribed to enhanced internet accessibility, intentional governmental efforts, and a rising awareness of remote employment alternatives. The industry is getting progressively competitive due to the proliferation of freelancing and remote job options

globally. Nevertheless, a comparison of yearly income records reveals that Bangladeshi freelancers make significantly less than their counterparts in countries such as the USA, India, or Pakistan. The annual salary of a US freelancer is USD 99,000 (The Upwork Team, 2025). In Pakistan, a freelancer can make as much as USD 100,000 annually, while Bangladeshi freelancers earn less than USD 10,000 per year (Mohaimen, 2023). While earnings are contingent upon other elements such as skills, knowledge, market competitiveness, and economic situations, English language proficiency is crucial for successful communication with overseas clients, hence facilitating access to lucrative projects. Effective communication is essential in the global outsourcing sector, where English frequently serves as the lingua franca. Insufficient English proficiency can result in misunderstanding, reduced client satisfaction, and a subsequent decrease in employment chances. Research has indicated that insufficient English communication skills hinder new freelancers from obtaining positions in the Business Process Outsourcing (BPO) industry or engaging in freelance work with international clients. The influence of English proficiency on the success of Bangladeshi freelancers in the global market is substantial, as it functions as an essential instrument for successful communication and economic progress. Mastery of English not only improves job prospects but also enables access to global commercial possibilities, thereby transforming linguistic capital into economic capital (Ramalingam & Islam, 2024). This article discusses the influence of English language competency on the capabilities of Bangladeshi freelancers in the outsourcing sector. It analyses how improved language proficiency may close current gaps, increase client relationships, and boost the status of Bangladeshi freelancers in the global economy. This study analyses existing data and trends to elucidate the relationship

between language competence and freelancing performance, providing recommendations for stakeholders to enhance a competitive and skilled freelancing workforce in Bangladesh. This study has been completed by following some questions-

- a. What is the importance of English language proficiency in the field of outsourcing business?
- b. What is the real condition of Bangladeshi freelancers? Are they proficient enough?
- c. What specific challenges do Bangladeshi freelancers face in communication? What is/are the impacts of that?
- d. What measures can be taken to solve these problems?

Literature Review

The Emergence of Freelancing Platforms and the Role of English Proficiency

The emergence of digital freelancing platforms like Upwork, Fiverr, Freelancer, and Toptal has transformed the global labour market by facilitating flexible, project-based employment opportunities for professionals globally (Berg et al., 2018). These platforms utilise technology improvements and globalisation to link freelancers with a variety of clients, cultivating a dynamic ecosystem in which skills from software development to creative design are transferred effortlessly. Charlton (2024) emphasises the rapid expansion of the gig economy at the World Economic Forum, mostly fuelled by the desire for economical and distant employment alternatives. Nonetheless, although these platforms provide autonomy and flexibility, they also pose issues like work insecurity, erratic income, and absence of social benefits, which undermine freelancers' career stability (Berg et al., 2018). English proficiency has become an essential ability for managing

this environment, as it facilitates effective communication, trust-building, and understanding of global project requirements (Roshid & Kankaanranta, 2023). Despite the globalising potential of freelancing, the significant dependence on English leaves non-native speakers at a structural disadvantage, possibly perpetuating inequities and constraining the inclusion of these digital labour platforms. Consequently, whereas these platforms ostensibly democratise access to employment, they may, in reality, perpetuate existing language hierarchies.

English Proficiency as a Catalyst for Career Advancement and Economic Mobility

In the worldwide freelancing market, having a command of the English language is widely acknowledged as a key to achieving better earning potential and advancing one's career. It makes it easier to negotiate smoothly, gain a better grasp of what the customer expects, and participate in professional networks, all of which are essential for acquiring prestigious projects and maintaining long-term client relationships (Kachru, 1990; Pennycook, 2017; Ammon, 2008). According to research conducted by Qamar (2024), freelancers who have a higher level of English proficiency regularly beat their colleagues who have a lower level of proficiency in terms of the acquisition of projects and money. In addition, English is used as a lingua franca in the information technology industry as well as other tech-driven fields, which need specialised vocabulary and precise communication (Crystal, 2003; Seidlhofer, 2011). However, this linguistic gatekeeping effect also reproduces structural inequalities, since individuals who come from households where English is not the primary language encounter obstacles that limit their access to high-value labour and upward mobility (Phillipson, 1992; Graham et al., 2017). This duality highlights the complicated function that English plays: it is simultaneously

a facilitator of participation in global economic activities and a cause of exclusion for those who do not possess adequate language abilities. It is not enough for individuals to make an attempt to address these discrepancies; rather, it is necessary to implement systemic interventions in the areas of language education and workforce development in order to establish fair routes within the gig economy.

Challenges in English Language Education and the Need for Contextualised Training

The gap between the English language skills that are taught in formal school and those that are expected by the labour market continues to be a chronic concern, particularly in Bangladesh. In spite of the widespread acceptance of Communicative Language Teaching (CLT) methods, classroom realities frequently revert to conventional, teacher-centred approaches that place more of an emphasis on translation and grammar than they do on functional communication (Hossain & Uddin, 2023). This leads to graduates who have difficulty using English in real-world situations, particularly in professional settings that require negotiation, presentation, and engagement with clients (Roshid & Kankaanranta, 2023). According to Talukder et al. (2025), schools typically fail to provide students with sector-specific content that is geared to businesses such as information technology or finance. As a result, students are not adequately equipped to meet the specialist communication requirements of these areas. The graduates' employability and productivity are negatively impacted as a result of the huge mismatch that exists between the English teaching they get in the classroom and the communication requirements of the business (Alam, 2018). Additionally, socio-economic variables restrict access to high-quality English education, which contributes to the perpetuation

of language disparities and impedes social mobility (Preece, 2019). The results of this study indicate the urgent need for English language instruction that is contextualised, skills-based, and matched with the requirements of the labour market. This training should also incorporate digital literacy and intercultural communication competencies to adequately prepare students for the globalised workplace.

Despite the fact that there has been a substantial amount of study conducted on the increasing significance of English proficiency in the worldwide freelancing and information technology industries, there is still a considerable knowledge vacuum about how these dynamics especially influence IT workers in Bangladesh. Studies that are now being conducted frequently concentrate on broad macro-level trends or investigate English education from a general viewpoint. However, these studies do not sufficiently investigate the complex relationship that exists between language competency, success in freelancing, and professional growth within the setting of this nation. Furthermore, there is a dearth of research that investigates the lived experiences of Bangladeshi IT freelancers, specifically how their English abilities impact the acquisition of projects, the contact with clients, and the career paths that they pursue on global platforms. In addition, there is a dearth of empirical research that establishes a connection between English language training procedures and the real communication requirements of the workplace in this industry. As a result, further qualitative research is required to shed light on these connections, pinpoint the problems that are contextual, and suggest specific educational changes that might increase English proficiency in ways that directly improve employment and economic results for Bangladeshi information technology workers.

Theoretical framework

This study's theoretical foundation is based on three interconnected frameworks: Communicative Competence Theory (Canale & Swain, 1980), Bourdieu's Theory of Linguistic Capital (Bourdieu et al., 1991), and Bandura's Self-Efficacy Theory (Bandura, 1997), which collectively provide a comprehensive understanding of the significance of English language proficiency for the success of Bangladeshi freelancers in the IT sector. Theory of Communicative Competence, proposed by Canale and Swain (1980), defines language proficiency as a synthesis of grammatical, sociolinguistic, discourse, and strategic competences, rather than only grammatical correctness. This idea is especially pertinent to the freelancing domain, where experts must manage intricate communication activities, including proposal composition, client negotiations, and project documentation. Participants expressed difficulty in speaking fluency, listening comprehension, and writing, highlighting deficiencies in these interrelated competencies and underscoring the necessity for a holistic approach to English language training. Bourdieu's (1991) Theory of Linguistic Capital posits that language functions as a type of cultural capital that can be traded for economic and social benefits. In global freelancing platforms where English predominates, freelancers with superior language skills have increased symbolic power, allowing them to secure higher-paying jobs and foster enduring client relationships. This corresponds with the study's findings, indicating that individuals with superior English proficiency reported increased confidence and financial stability. Moreover, Bandura's (1997) Self-Efficacy Theory introduces a psychological aspect, positing that individuals' confidence in their talents profoundly impacts their motivation, effort, and resilience. Participants exhibiting elevated English self-efficacy had more confidence in client

contacts and task execution, which corroborates the theory's claim that self-efficacy influences both behavioural engagement and performance results. Collectively, these frameworks enable a sophisticated comprehension of how English language proficiency not only promotes effective communication but also serves as a vital resource in establishing professional identity, negotiating freelance opportunities, and improving economic mobility within the competitive global gig economy.

Methodology

This study utilised a quantitative research method to examine the significance of English language proficiency among Bangladeshi freelancers in the information technology (IT) sector. A total of 104 participants were selected by purposive sampling, a non-probability method aimed at identifying specific groups with relevant characteristics for the study objectives (Etikan et al., 2016). The target market consisted of active freelancers who regularly employ digital platforms such as Upwork, Fiverr, Freelancer, and Toptal to secure global clients and projects. Data were gathered using a structured questionnaire sent using Google Forms, an efficient method for reaching geographically dispersed individuals with high digital literacy. The questionnaire included many items employing Likert-type scales, varying from two-point to five-point formats, depending on the nature of the questions. This flexible scaling technique enabled a comprehensive evaluation of participants' attitudes, experiences, and perspectives about their English language proficiency and its impact on freelancing success.

The Likert-scale items were explicitly aligned with the four study topics. Factors including perceived significance,

self-evaluated competence, communication obstacles, and prospective remedies facilitated quantifiable insights into each domain. This guaranteed that the acquired data corresponded accurately with the study's objectives and facilitated methodical analysis of the principal concerns. The collected replies were analysed using Statistical Package for the Social Sciences (SPSS) version 26, enabling both descriptive and inferential statistical evaluation. Descriptive statistics, including frequencies and percentages, were utilised to summarise trends and identify patterns within the dataset. SPSS is renowned for its capacity to effectively manage and analyse large datasets, making it appropriate for survey-based research in education, linguistics, and workforce development (Field, 2018). This study employed SPSS to conduct a systematic and transparent analysis, hence facilitating reliable interpretations of the language-related challenges and competencies among the freelancing community. The methodology incorporates best practices in empirical research concerning language proficiency in professional and digital contexts, utilising purposive sampling, online data collection, and statistical analysis to effectively address the research questions (Creswell & Creswell, 2018). Moreover, utilising a digital platform for distribution was particularly appropriate given the virtual nature of freelancing, thereby enhancing the response rate and improving data quality.

Demographic profile of the samples

The demographic profile of the respondents indicates that, among 104 legitimate instances, the majority were male and employed full-time. Of the respondents, 73 (70.2%) identified as male and 31 (29.8%) identified as female, revealing a significant gender disparity in the sample. The average value

for gender was 1.30 (where 1 = Male, 2 = Female), with a standard deviation of 0.460, indicating a predominance of male participation. Concerning job situation, 63 respondents (60.6%) were engaged in full-time employment, whereas 41 respondents (39.4%) indicated part-time work. The average role score was 1.61 (with 1 representing Part-time and 2 representing Full-time), accompanied by a standard deviation of 0.491, indicating a higher prevalence of full-time employees. The mean and median values further corroborated these tendencies. One instance was absent for each variable. The demographic factors offer essential background for evaluating the study's findings and may influence the interpretation of participant viewpoints within the wider research framework.

Table 1. Demographic picture of the samples

Variable	Category	Frequency	Percent
Gender	Male	73	70.2%
	Female	31	29.8%
Role	Part-time	41	39.4%
	Full-time	63	60.6%

Results of this Study

Findings

Table 2. This table shows the result of this study at a glance

Question	Valid (N)	Mean	Median	Mode	Std. Deviation	Sum
1. Improving English proficiency should be a mandatory part of freelancing training programs.	104	1.62	1.0	1	0.909	167

Question	Valid (N)	Mean	Median	Mode	Std. Deviation	Sum
2. Proficiency in English enhances freelancers' confidence when interacting with clients.	104	1.47	1.0	1	0.847	153
3. Good English skills are essential for securing higher-paying freelancing projects.	104	1.58	1.0	1	0.910	164
4. Listening and understanding native English speakers is a major challenge for me.	104	1.71	1.0	1	0.942	178
5. Writing effective proposals in English is one of the most difficult parts of freelancing.	104	1.92	1.0	1	1.146	200
6. I find it difficult to speak fluently with clients in English during live conversations.	104	1.50	1.0	2	0.787	156
7. Freelancers with better English skills understand client instructions more accurately.	104	1.63	1.0	1	0.898	170
8. My limited English skills have negatively impacted my freelancing income.	104	1.71	1.0	1	0.901	178
9. English language training improves freelancers' ability to communicate effectively with clients.	104	1.60	1.0	1	0.861	167
10. The growth of outsourcing in Bangladesh depends significantly on the English proficiency of freelancers.	104	1.63	1.0	1	0.882	170
11. I feel confident using English in my freelancing work.	104	2.27	2.0	1	1.198	236

Question	Valid (N)	Mean	Median	Mode	Std. Deviation	Sum
12. Clients have commented positively on my English communication skills.	104	2.17	2.0	2	1.021	226
13. Which area of English do you find most challenging? (1=Listening, 2=Speaking, 3=Reading, 4=Writing)	103	2.01	2.0	1	1.015	207
14. Have you ever lost a freelancing opportunity due to poor English skills? (1=Yes, 2=No)	104	1.38	1.0	1	0.488	143
15. Would you be willing to join an English improvement program if offered? (1=Yes, 2=No)	104	1.72	2.0	2	0.449	179
16. Government initiatives should include English courses for freelancers. (1=Strongly agree, 5=Strongly disagree)	104	1.25	1.0	1	0.434	130
17. An all-skills English curriculum by NCTB would improve freelancers' communication.	104	1.28	1.0	1	0.452	133

The findings of the study indicate that there is substantial agreement among respondents on the significance of having language skills when working as a freelancer. When it came to the first question, the majority of respondents agreed that strengthening their English skills should be required in freelancing training programs (mean = 1.62). On the other hand, the second question revealed a high degree of agreement that speaking English increases confidence when communicating with clients (mean = 1.47). In addition, the third question highlighted the importance of having strong English abilities in

order to get high-paying projects (mean = 1.58). The responses to questions 4 and 5 suggested that you have a moderate to high level of difficulty comprehending native speakers (mean = 1.71), and that you have a mean of 1.92 when it comes to making proposals in English. The results of Question 6 showed that it is difficult to talk smoothly during live contacts (mean = 1.50), and Question 7 demonstrated that freelancers who are skilled in English have a superior understanding of the instructions given by clients (mean = 1.63). Question 8 demonstrated that a lack of English had a detrimental effect on the revenue of a significant number of freelancers (mean = 1.71), but Question 9 provided support for the idea that English training improves contact with clients (mean = 1.60). The participants in Question 10 were in agreement that the expansion of freelancing on a national scale is linked to English abilities (mean = 1.63). However, Question 11 revealed a somewhat low level of confidence in your ability to use English (mean = 2.27), and Question 12 revealed that although some individuals had gotten favourable feedback from clients, it was not universal (mean = 2.17). Question 13 found that speaking is the English ability that presents the most challenge (mean = 2.01). A sizeable proportion of respondents in Question 14 (mean = 1.38) stated that they had lost career chances as a result of their poor English, and in Question 15, respondents indicated that they were eager to participate in English development programs, but with some reluctance (mean = 1.72). In conclusion, the results of questions 16 and 17 indicated that there is a significant amount of support for the incorporation of English training into government freelancing efforts and the adoption of an English curriculum that encompasses all abilities (means = 1.25 and 1.28, respectively). In general, the comments demonstrate a clear appreciation of the need to have a strong command of the English language in order to achieve success in the freelancing industry.

Discussion

The study's conclusion that English proficiency is strongly associated with the success of Bangladeshi freelancers is consistent with prior research indicating that English skills substantially improve access to global digital labour markets and increase earning potential (Warschauer, 2000; Lu et al., 2024). English serves as an essential lingua franca on freelancing sites, enabling effective communication and agreements between customers and freelancers globally. Nevertheless, several studies indicate that an excessive focus on English may marginalise freelancers who depend on local languages or specialised technical skills, suggesting that multilingualism can occasionally provide a competitive advantage (Chen & Leung, 2020). Nonetheless, the dominance of English as the international business lingua franca, particularly in Bangladesh, where it serves as a second language, underscores its essential function in affording freelancers a competitive advantage and fostering customer confidence (Arafin Ayon, 2023).

Participants' assertions that enhanced English proficiency bolsters their confidence in customer interactions align with studies underscoring the correlation between linguistic self-efficacy and professional performance (Bandura, 1997; Wang & Sun, 2020). Assertive communication alleviates anxiety and enhances relationship development in virtual freelancing contexts. However, other researchers contend that fluency alone does not ensure confidence, as personality traits and cultural variables also affect communicative confidence (Inoue, 2007). However, due to the professional requirements of freelancing, improved English proficiency typically enhances perceived competency and increases negotiating leverage with clients (Qamar, 2024).

The belief that superior English proficiency facilitates access to higher-paying projects aligns with digital labour research, indicating customers choose freelancers with excellent English abilities, frequently resulting in more profitable contracts (Kim et al., 2023). Conversely, several studies indicate that technical competency may occasionally offset inadequate English abilities, particularly in domains like as programming or design, where the quality of output is prioritised over linguistic competence (Yaqoob et al., 2025). Nevertheless, as client-freelancer communication predominantly relies on English to elucidate project specifics and align expectations, linguistic difficulties sometimes limit access to lucrative contracts, highlighting the necessity of English language training (Kathuria et al., 2017).

It is well known that non-native English speakers have difficulties in professional freelancing environments due to the difficulties they experience in hearing and writing abilities (Fatema et al., 2024). The difficulties that participants have voiced in this respect are well established. Even if the increasing usage of translation software and visual communication tools may help relieve certain challenges (Pietrzak & Kornacki, 2020), listening and writing continue to be vital for fully understanding the needs of a project and delivering convincing ideas. According to Fatema et al. (2024), it is for this reason that comprehensive skill development in these areas is very necessary.

Communication study that emphasises the significance of oral competency in developing trust and decreasing misconceptions in virtual teams (Fleischmann et al., 2020) lends credence to the view that speaking issues and the assumption that fluent English facilitates better comprehension of project needs are both supported by the research. However,

due to the interactive nature of freelancing negotiations, spoken English continues to be a practical need for effective client connection (Foong, 2020). This is even though asynchronous communication platforms have the potential to somewhat lessen reliance on spoken fluency (Yaqoob et al., 2025).

The findings of labour market assessments that demonstrate language barriers contribute to pay penalties and fewer chances in digital economies (Dustmann & Fabbri, 2003) lend credence to the concerns that inadequate English proficiency affects competitiveness and earning potential. These concerns are well-founded. Nevertheless, according to the findings of a number of studies (Vallas & Schor, 2020), freelancers can partially overcome language obstacles by using platform algorithms and impressive portfolios. In spite of these outliers, the English language ability gap in Bangladesh continues to prevent a large number of freelancers from gaining access to high-paying jobs, underlining the critical need for focused language development (Hossain, 2018).

It is consistent with worldwide evidence that advocates vocational language training as an effective strategy to boost employability and income in digital labour markets (Mustajab & Irawan, 2023). The high support that participants have for English training programs and their belief in the expanded sectoral advantages that these programs offer are in line with this evidence. Nevertheless, maintaining student enthusiasm and adjusting courses to the reality of freelancing continue to be problems, with certain programs reporting significant dropout rates (Takase, 2024). Nevertheless, the fact that Bangladeshi freelancers have indicated that they are eager to participate in individualised language learning indicates that there is a promising possibility for interventions that can have a significant influence on the results of freelancing

(Alam et al., 2021). In conclusion, although there are other points of view that accept multilingualism and technical skills as partial mitigators of language barriers, the overwhelming evidence from our study and worldwide literature emphasises that English proficiency is a crucial factor in determining the level of success that one achieves when working as a freelancer in Bangladesh. Based on these findings, there is an immediate need for educational and policy changes to be implemented to develop English language programs that are both comprehensive and contextualised, to enable freelancers to effectively participate in the global digital economy.

Recommendations

This study's findings underscore the necessity of implementing focused, realistic, and accessible measures to elevate the English language skills of Bangladeshi freelancers, hence enhancing their competitiveness in the global freelancing market. Initially, cost-effective and adaptable training programs must be established, emphasising essential freelance communication competencies, including proposal composition, client negotiations, and practical client engagements. These programs have to be affordable and self-directed to accommodate the temporal and financial limitations frequently encountered by freelancers. Secondly, it is important to emphasise speaking and listening abilities, since they have been seen as considerable problems. Training must encompass modules on conversational fluency, accent clarity, and practical engagement through simulated client encounters, under the research of Khor & Tan (2023) and Klitmøller & Lauring (2013) regarding the significance of verbal communication in distant work. Thirdly, it is essential to provide freelancer-specific English courses designed for platforms such as Upwork and Fiverr to address the disparity between general language education and

the communicative requirements of digital work environments, as suggested by Roshid & Kankaanranta (2025). Furthermore, digital tools and media—such as pronunciation applications, grammar checkers, podcasts, and English-language content—ought to be incorporated into training methodologies, providing economical and adaptable avenues for freelancers to engage with English in realistic circumstances (Suortti & Sivunen, 2024). Furthermore, facilitating practical sessions like webinars, mock interviews, and client simulations may enhance confidence and solidify acquired abilities within a supportive setting. Promoting awareness of the concrete advantages of English proficiency—such as increased income, improved customer connections, and more job mobility—is crucial for fostering ongoing language growth. Collaborations with reputable language institutions may enhance training quality and bolster the authenticity of language certificates for foreign clientele. The collaborative endeavours of policymakers, training institutions, and freelancers are essential to establish an inclusive and successful language development ecosystem that tackles current deficiencies and prepares Bangladeshi freelancers for enduring success in the global digital economy.

Conclusions

This study highlights the crucial importance of English language skills in determining the success and career paths of Bangladeshi freelancers in the IT industry. The results indicate that proficient English abilities improve freelancers' capacity to communicate effectively, obtain higher-paying tasks, and establish client trust, factors essential for success in the competitive global gig economy. The enduring issues associated with listening, speaking, and writing abilities indicate chronic deficiencies in language education and training that current curriculum and governmental measures have not sufficiently addressed.

Although certain research emphasises the capacity of digital technologies and localised training to address these disparities, the intricate interplay of linguistic confidence and customer expectations indicates that language development should be more comprehensively incorporated into professional skill-building initiatives. Furthermore, despite the acknowledged significance of English, the uneven availability of excellent language learning tools threatens to intensify existing socioeconomic inequities among freelancers. This necessitates immediate, focused interventions at both institutional and governmental tiers to ensure equal assistance, including accessible and contextually pertinent language training customised for freelance requirements. This research promotes improved language education programs and comprehensive structural reforms that recognise the complex role of language as both a skill and a barrier in the changing environment of remote labour. Critically addressing these concerns will be vital for equipping Bangladeshi IT workers to compete equitably and sustainably in the global marketplace.

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Impact of Content Language Integrated Learning (CLIL) Schooling on L1 Competence: A Case Study on Students with Language-Based Learning Disability (LBLD)

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Abstract: This study examines the impact of content language integrated learning (CLIL) on the academic language development of students with language-based learning disabilities (LBLD) in a bilingual context, focusing on the different dynamics between first language (L1) and second language (L2) proficiency. Using a mixed-methods approach, data were collected from teachers, students, and parents. While teachers express positive views on CLIL, the unexpected trend of students favoring the CLIL language (English) over their mother tongue (Bangla) suggests a proficiency gap. Parental concerns include slow language development, motivational challenges, and instances of translation from L2 to L1. Performance data indicate consistent results but unveil challenges for students with LBLD. The study calls for a balanced approach that combines CLIL principles with the strategic use of the mother tongue and addresses motivational factors, offering educators

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and policymakers essential insights in the context of bilingual education.

Keywords: Content Language Integrated Learning (CLIL), Language-Based Learning Disabilities (LBLD), Mother Tongue, Proficiency, Case Study.

Introduction

Content and Language Integrated Learning (CLIL) is an innovative educational approach that involves teaching academic subjects in a language other than the students' mother tongue, aiming to promote bilingualism and enhance comprehension of subject matter. CLIL encompasses a diverse range of practices wherein an additional/second/foreign language is utilized to instruct curricular subjects such as science, history, mathematics, or art, among others (Dalton-Puffer et al., 2010). Initially conceptualized as a dual-focused method drawing on both content and language learning (Fruhauf et al., 1996; Nikula & Marsh, 1997; Marsh & Langé, 2000; Marsh et al., 2001), CLIL is considered 'integrated' (Nikula & Marsh, 1997). It aims to provide students with rich and varied input, encompassing different language functions, genres, academic language, and classroom language. Furthermore, CLIL seeks to foster student engagement and complex output (Swain, 1985) while nurturing students' learning and cognitive strategies to address the dual challenge of acquiring new material through a foreign language (Halbach, 2009).

CLIL differs from traditional foreign language teaching primarily in that it creates a learning environment that replicates the conditions under which the mother tongue is acquired, as the language is learned concurrently with the content (Coyle

et al., 2010). It goes without saying that the best-known line of research examines the effectiveness of CLIL in language outcomes, because “many researchers involved in CLIL studies have been applied linguists” (Merino & Lasagabaster, 2018, p. 2) and because the improvement of L2 learning is the primary reason for providing CLIL. Conversely, L1 development, content absorption and critical competences receive much less attention. Furthermore, while CLIL has gained global recognition and acceptance, there is a growing demand to assess its impact on students with language-based learning disabilities (LBLD). This article explores the effects of CLIL instruction on the first language (L1) competence of students with language-based learning disorders, specifically focusing on dyslexia and attention deficit hyperactivity disorder (ADHD). We aim to investigate whether exposure to CLIL influences the development of both L1 and L2 in students with LBLD and whether their participation in CLIL enhances metalinguistic awareness, potentially improving their proficiency in the first language.

Conceptual Issues

Language Based Learning Disability (LBLD)

Since LBLDs are “a spectrum of difficulties related to understanding and using spoken and written language” (Newhall, 2012), most of the academic problems of these children stem from difficulties in language and literacy skills (Abbott et al., 2010; Siegel, 2006). They may also have difficulties in paying attention, memory and executive functions etc. These problems manifest themselves in different ways in language classrooms, especially when dealing with a second language. The most common learning disabilities are dyslexia, ADHD, dyscalculia, dysgraphia and dyspraxia. Each of these conditions can be

present with a variety of symptoms and can be diagnosed through a combination of clinical and educational testing.

In mid-secondary school (class7-8), students with LBLD face difficulties in note-taking, time-management, and language proficiency, particularly in a foreign language like English. LBLD encompasses difficulties in reading, syntax, vocabulary, spelling, and verbal expression, both in L1 and foreign languages. Research highlights academic gaps, dropout risks, and self-esteem issues among students with LBLD, necessitating targeted interventions (U.S. Department of Education, 2002; Hardman et al., 2011; Mortimore & Crozier, 2006; Klein, 1993; Gilroy & Miles, 1996; Riddick, 1996; Kavale& Forness, 1996).

The Role of L1 in CLIL

In the context of CLIL, the role of L1 is crucial and multifaceted. L1 serves as a cognitive scaffold, providing learners with a familiar foundation upon which they can build new knowledge in the target language. Research by Marsh and Wolff (2007) highlights the cognitive benefits of leveraging the L1, emphasizing that a strong conceptual grasp in the native language facilitates the acquisition of new concepts in the target language. Makarova (2009, p. 49) claims that “banning the first language from communicative learning a second language can actually reduce cognitive and metacognitive opportunities for students.” Based on the evidence, Lasagabaster (2013) confirms that vocabulary items could be better learned by providing the L1 equivalents rather than providing definitions or paraphrases in L2. This concept aligns with Cummins’ (1981) notion of linguistic interdependence, emphasizing the transferability of cognitive skills across languages. Cummins (2001) also argues that a positive affective environment, facilitated by the use of the

L1, fosters students' engagement, reduces anxiety, and thereby enhances overall learning outcomes. The nurturing of students' cultural identity and fostering a sense of belonging are also linked to the use of the L1 in CLIL classrooms (Lasagabaster et al.,2014). According to Marsh and Coyle (2010), the rate of L1 use in CLIL classrooms is complex and context-dependent. They emphasize the significance of a striking balance between the use of L1 and target language based on learner needs and pedagogical aims. In particular, during the early phases of learning new material, their approach acknowledges the function of L1 as a cognitive tool for scaffolding comprehension. Storch and Aldosari (2010) also affirm:

The use of the L1 by the learners seems to serve important cognitive, social and pedagogical functions. This is of course not to say learners should be encouraged to use L1 extensively. Rather . . . to restrict or prohibit the use of L1 in L2 classes is to deny learners the opportunity of using an important tool. (372)

Marsh and Coyle (2010) advise teachers to utilize the L1 strategically, especially when explaining complex topics, in order to ensure understanding and build a solid basis for future learning in the target language, as per their Content-Based Language Teaching (CBLT) approach. In addition, they also emphasize the gradual reduction of L1 use as students become more proficient in the target language, aligning with the principle of linguistic interdependence. This approach aims to support learners in transitioning from the familiar ground of their first language to the challenges of content learning in the target language. Accordingly, the Common European Framework of Reference for Languages (CEFR) underscores the importance of gradual transition to the target language to ensure sustained language development (Council of Europe, 2001).

CLIL Schooling in Bangladesh

English version schools in Bangladesh have seen a rapid increase in students, primarily for bilingual education. These schools follow the national curriculum to meet the growing demands for English language proficiency in the job sector. Parents are also interested in sending their children to English version schools due to wider job opportunities and easy access to higher education. In Bangladesh, English version schools are an optional choice. NCTB introduced English version textbooks in the late 1990s, directly translating Bengali medium textbooks, using the same testing and assessment policies for both groups of students. Though English version education is not formally declared CLIL, the curricular model closely relates to CLIL. In addition, like CLIL, English version education aims to increase learners' motivation for studying foreign languages and promote their communicative competences for future work and study abroad. In English version schools Bangla (L1) is taught as a single compulsory subject and all other subjects are taught in English (L2). In these schools, English is introduced as the medium of education from the very elementary level. It has been observed that the curricular model adopted for CLIL in secondary-level English version schools in Bangladesh aligns with CLIL Model B2 as proposed by Coyle et al. (2010). This model is recommended for learners aged between 2 and 19 years. It possesses the following key characteristics:

Bilingual Education: CLIL Model B2

Learners study a significant part of the curriculum through the CLIL language for several years intending to develop required content learning goals and advanced language skills:

- Learners participate in international streams and develop advanced CLIL language skills for these specific subjects. This is complemented by language learning which focuses on interpersonal skills and cognitive language proficiency.
- Often linked to international certification, and national/regional special status assessment and recognition
- Assessment of key principles in CLIL language, with parallel first-language assessment of major concept (21)

Literature Review

In recent years, studies have been employed around the world to gather information about the implementation of CLIL including the learners' and teachers' attitude, belief and perception about CLIL (Nikula & Marsh, 1997; Yassin et al., 2009), and thereby providing valuable information for educators, administrators, and policy-makers. Studies support that CLIL assist positively in improving target language proficiency and the acquisition of content knowledge (Nikula, 2008).

Research shows that using English as a medium of instruction for various subjects is more effective in achieving functional language proficiency in CLIL students compared to non-CLIL students. CLIL students have higher social and academic language competences, better skills in applying lexical knowledge, and perform better on cognitively demanding tests of academic language ability (Hewitt, 2011; Hou, 2013; Klimova, 2013; and Morgado & Coelho, 2013).

Lasagabaster and Doiz (2016) study with 221 CLIL students from the Basque Autonomous Region Community (BAC;

Spain) revealed longitudinal data showing that participants perceived that their improvement in English was greater in CLIL lessons than in regular English foreign language courses (EFL). Similarly, Syzdykbayeva (2017) in her study with 69 students of Kazakhstan, where CLIL was newly introduced, revealed that students were mainly positive about CLIL because they found CLIL to be beneficial for developing their English skills, preparation for a better career and the need for further education. Findings of Child's (2017) study indicated that CLIL developed sixth grade Finnish students' cognitive skills, metalinguistic awareness and critical thinking which are essential for future success. In their 2007 study Hüttner and Rieder-Bünemann found that CLIL instruction helped children improve in both macro and micro-level competencies. The CLIL group had more advanced control over micro-level features of narration, such as consistency of anchor tense and use of correct verb forms, and were more competent in some macro-level features. In addition, Jackson (2012) found that combining CLIL with genre process writing significantly improved students' writing skills. In the Inferential analysis of t-tests at the beginning of the semester, Jackson observed no significant difference between the control group and the test group. However, compared to the control group, the test group made fewer grammatical errors at the end of the semester.

Previous research support that CLIL enhances metalinguistic awareness of the students, providing a deeper understanding of language structures beyond the linguistic domain. Young (2018) conducted his study on learner motivation to learn a foreign language among 12-year-old students in Scotland using reflective journals, focus groups and questionnaires. The findings suggest that CLIL has a strong impact on motivation to learn the language, makes lessons more engaging and fun,

and creates more opportunities for pupils to speak the target language. Milne and Perucha (2010) and Thogersen (2013) compared stylistic differences and meta-discursive devices used by lecturers in their L1 and L2. Both studies shared a similar conclusion is that English lectures appear to be more formal than those in the L1, resembling written academic prose and paper styles. In addition, Ljosland (2010) investigated the ways in which English interacts with students' first languages. The researcher concluded that interaction in different languages creates a favorable framework for carrying out different activities that enrich the learning process.

In terms of first language (L1) development and content learning, CLIL programs show significant effects. Research has shown that well-implemented bilingual education can positively influence L1 proficiency through a focus on language development and maintenance, as observed in studies like Thomas and Collier's (2002). Marsh and Langé (2000) found that CLIL positively influences L1 level as learners often transfer language skills and cognitive strategies acquired in L2 back to their L1. Bilingual education enhances content learning by providing students with cognitive advantages, such as improved problem-solving skills and a deeper understanding of subject matter through the acquisition of multiple languages. For example, Clarkson (1992, 2007) and Dawe (1983) found that bilingual students excel in mathematics when they are proficient in both languages, possibly due to increased metalinguistic awareness (Clarkson, 2007). This understanding helps them understand how each linguistic structure operates independently, enhancing their performance. Cummins (2001) also admits that saying, "bilingualism is associated with enhanced linguistic, cognitive, and academic development when both languages are allowed to develop," (4). However, the outcomes may vary based on

the specific program, individual student characteristics, and socioeconomic and cultural factors.

CLIL, despite its benefits, can negatively impact the development of L1, especially in the early stages. Research by Huhta (2010) suggests reduced vocabulary and grammatical accuracy due to students focusing on acquiring the target language and navigating content areas. Research on the negative impact of CLIL on learners' L1 competence highlights concerns such as language interference, reduced exposure to the L1, potential language shift, limited instructional time in L1, and cognitive overload. Scholars such as Lasagabaster and Ruiz de Zarobe (2010) discuss how CLIL programs, with their emphasis on content instruction in the target language, may lead to interference in the clarity and accuracy of expression in the learners' L1. Additionally, Cenoz, Genesee, and Gorter (2013) and Dalton-Puffer et al., (2010) point out that reduced exposure and instructional time in L1, combined with the cognitive demands of simultaneous content and language learning, can impede the development of advanced linguistic skills and cognitive abilities in the learners' native language. According to Genesee (1987) high exposure of L2 at early primary level can slow down literacy skills in L1.

While a substantial body of international research supports the benefits of CLIL in improving language proficiency, content learning, and metalinguistic awareness, the literature also reveals concerns regarding its potential negative impact on first language (L1) development, especially in early educational stages. Although studies from contexts such as Spain, Kazakhstan, Finland, and Scotland (e.g., Lasagabaster & Doiz, 2016; Syzdykbayeva, 2017; Child, 2017; Young, 2018) offer valuable insights into CLIL's advantages, they are primarily

situated in bilingual or multilingual educational environments with institutional support and established CLIL frameworks.

In contrast, in Bangladesh, there has been limited research on both CLIL and learning disabilities. For instance, Kamal (2022), in a study involving 30 tertiary-level students, found that while CLIL was effective in improving students' English vocabulary and grammar, it did not contribute significantly to the development of their literary knowledge. Some students found the approach boring and disappointing, particularly those who preferred traditional literary analysis. Others believed that CLIL undermined the core objective of literature courses, which is to deepen literary understanding.

In the context of inclusive pedagogy, Islam (2022) examined the perceptions of twelve EFL/ESL teachers working in schools regarding students with learning disabilities. Although the teachers lacked sufficient knowledge and training about learning disabilities, they expressed a positive willingness to accommodate learners with diverse needs in their classrooms, despite the limitations in pedagogical and infrastructural support.

Therefore, the approach followed in this study is of particular interest because (i) it provides evidence of the L1 performance of students with language-based learning disabilities (LBLD) studying in schools practicing CLIL principles, (ii) it includes students' self-assessments of both L1 and L2 performance, (iii) the study employs a data triangulation method to ensure the validity of its findings, and (iv) it addresses the monolingual Bangladeshi education context where CLIL programmes have existed for two decades but remain largely unexplored in terms of inclusive and linguistic outcomes. This study seeks to fill this gap by providing empirical evidence on how CLIL affects both L1 and L2 performance among learners with LBLD, and thereby

contributing to the growing global conversation on inclusive and bilingual pedagogy.

Understanding the trajectory of academic language development both in L1 and L2 is crucial for educators and policymakers to tailor effective instructional strategies for students with LBLD. While CLIL programmes aim to enhance L2 proficiency, it is essential to explore whether early involvement in CLIL impacts the growth of academic language skills in students' primary language. There is a need to discern whether the emphasis on content and language integration in CLIL schools contributes equally to the growth of academic language skills in both L1 and L2 for students with LBLD. To address these concerns, the present study sets out two main objectives: (i) to investigate the pattern of academic language development in L1 among students with LBLD enrolled in CLIL schools, and (ii) to examine potential disparities in academic language growth between L1 and L2 among the same group of students. Accordingly, this study aims to answer the following research questions: First, how does early involvement in CLIL schools affect the academic language development in the L1 among students with LBLD?

Second, do students with LBLD in CLIL schools demonstrate comparable levels of academic language growth in their L1 and L2? If not, what factors might be contributing to these disparities in language development?

Methodology

Research Design

This study adopted a qualitative exploratory case study design using data triangulation to gain a comprehensive understanding of how CLIL affects L1 development among students with

language-based learning disabilities (LBLD), specifically dyslexia and ADHD, in English version schools in Bangladesh. A mixed-methods approach was employed, integrating qualitative insights with quantitative survey data to enhance reliability and depth.

Participants

The study involved eighty (N=80) participants including 30 students aged 8-15 diagnosed with LBLD by certified professionals, 30 subject and language teachers, and 12 parents. Teachers offered insights into CLIL practices and student performance, while parents shared perspectives on language use at home. From the overall pool, a sub-sample of 10 students, 10 teachers, and 5 parents was purposefully selected for in-depth semi-structured interviews. The snowball sampling technique was used to identify participants based on referrals from teachers and parents.

Instruments and Data Collection Methods

To ensure a well-rounded understanding, the study employed a questionnaire, FGD, semi-Structured Interviews, document analyses (such as student work, exam script) and Classroom Observations.

A structured questionnaire using Likert-scale items was administered to 30 teachers. Data were analyzed using IBM SPSS to obtain descriptive statistics (mean, standard deviation). The questions assessed teachers' perceptions of CLIL, language use, and the role of Bangla in instruction. A focus group discussion (FGD) was conducted in natural settings with 30 parents and was recorded with their consent. The recordings were transcribed and analyzed thematically. The discussion explored topics such as students' language preferences, academic confidence, learning experiences, and parental concerns. In addition, student work

samples, including classwork, homework, creative writing, and examination scripts in both English and Bangla, were collected and analyzed. Particular attention was paid to language complexity, grammar, vocabulary, coherence, spelling, and structural patterns.

All 30 student participants were observed over a six-month period, with data collected at months 1, 3, and 6. During this observation period, semi-structured interviews were conducted with a sub-sample of the students. The observations focused on students' oral communication and interaction behaviors in their first language (L1), as well as written texts in L1 produced during classwork and examinations.

Ethical Considerations

Informed consent was obtained from all participants or their guardians. The anonymity and confidentiality of participants were ensured throughout the research. Participants were reassured that their responses would be used solely for academic purposes, and no identifiers would be included in the published results.

Data Analyses Procedure

A qualitative content analysis of responses was conducted to identify themes across the interviews. This is a method that involves the identification of connections within and between themes (Taylor-Powell & Renner, 2003). To identify different issues, the transcribed text was reviewed three times by the interviewer. In this stage to derive codes from the data, an inductive coding approach is utilized. The data was coded using free nodes to identify differences and consistencies which means if there were connections between themes, they were identified and used for interpretation. Reading and re-reading the data revealed recurring patterns of information displayed by the participants. The final categories were formed from several

responders' identification of similar themes. Any exceptional remarks made by the respondents were also noted.

Similarly, from the teachers, data were collected through a questionnaire in a quantitative manner about their overall perception regarding CLIL, reflections on their own use of L1 at school and the performance of students with LBLD in L1. To complement the qualitative findings, quantitative data were collected from teachers through a questionnaire. This quantitative approach aimed to gather numerical insights into teachers' overall perceptions regarding CLIL and the performance of students with LBLD in L1. The use of quantitative data allows for a more structured understanding of the grade-based aspects of teacher perceptions. This study combines qualitative and quantitative approaches to examine the impact of CLIL on L1 learning in students with LBLD. The qualitative analysis provides rich, contextual insights, while the quantitative data increase the study's depth by adding a numerical dimension.

Data Analysis

Data Collected from Teachers

Data collected from the teachers were analyzed using IBM's Statistical Package for Social Science (SPSS) software and placed in the following chart. The chart provides insights into educators' perceptions of CLIL and language use in teaching.

Sl. nO	statement	N	Minimum	Maximum	Mean	Std. Deviation
1.	Students are benefited by CLIL	30	2	5	4.03	0.890
2.	Teaching other subjects in English increases amount of using English by the students outside the classroom?	30	3	5	4.01	0.608

Sl. nO	statement	N	Minimum	Maximum	Mean	Std. Deviation
3.	Teaching all subjects in English develops students' skills in reading and writing alongside verbal and non-verbal communication	30	1	5	3.10	1.269
4.	My experience in teaching subject content through English is positive	30	2	5	3.83	1.262
5.	CLIL helps students develop their language skill	30	3	5	3.83	1.262
6.	CLIL helps students develop only their subject knowledge	30	2	5	3.37	1.245
7.	CLIL helps students develop both their subject knowledge and language skill	30	2	5	4.40	1.589
8.	Teaching other subjects in English have the same level of competence in both: Bengali and English	30	1	5	2.93	0.884
9.	I support that Bangla (L1) should be used in CLIL classes	30	1	4	2.59	1.49
10.	I use Bangla for teaching vocabulary	30	3	4	3.33	0.649
11.	I use Bangla for illustrating anything with example	30	3	5	4.17	1.658
12.	I use Bangla only when my students find difficulties in understanding anything	30	3	5	3.963	1.394
13.	If they are taught two or three subjects in Bangla in school their Bangla will be improved	30	2	5	4.00	0.450

Table-1: Teachers' perception about CLIL and language use in teaching

The above table presents survey data from 30 respondents, assessing their perspectives on CLIL and language use in teaching. Notably, a majority of educators (Mean = 4.03, Std. Deviation = 0.890) believe that students benefit from CLIL, and there is a consensus (Mean = 4.01, Std. Deviation = 0.608) that teaching subjects in English enhances students' English usage outside the classroom. However, opinions vary regarding the impact of teaching all subjects in English on developing diverse communication skills (Mean = 3.10, Std. Deviation = 1.269). While most respondents express positive experiences teaching subject content in English (Mean = 3.83, Std. Deviation = 1.262), there is a divergence in views on whether CLIL primarily aids language skill development (Mean = 3.83, Std. Deviation = 1.262) or subject knowledge alone (Mean = 3.37, Std. Deviation = 1.245). Notably, a substantial consensus exists that CLIL contributes to both subject knowledge and language skills (Mean = 4.40, Std. Deviation = 1.589). Furthermore, respondents generally acknowledge a lower level of competence in Bengali than English when teaching other subjects in English (Mean = 2.93, Std. Deviation = 0.884). The support for using Bengali (L1) in CLIL classes is moderate (Mean = 2.59, Std. Deviation = 1.49). Interestingly, instructors tend to use Bangla strategically, such as for teaching vocabulary (Mean = 3.33, Std. Deviation = 0.649) or when students face difficulties in understanding (Mean = 3.963, Std. Deviation = 1.394). The data also suggests a strong consensus that teaching two or three subjects in Bangla can improve students' proficiency in the language (Mean = 4.00, Std. Deviation = 0.450).

Therefore, the data reveal that teachers believe CLIL effectively enhances students' English proficiency and supports the development of both language skills and subject knowledge. However, they also observed that students often show lower

competence in Bangla when all subjects are taught in English. There was strong agreement that introducing two or three subjects in Bangla could help reinforce students' L1 skills. Overall, the findings reflect a balanced perspective, acknowledging the benefits of CLIL while recognizing the importance of using the native language to support comprehension and promote balanced language development.

Data Collected from Students

The collected data from students offer valuable insights into their self-assessment of academic performance and language preferences. The majority of students assigned themselves higher grades in English language and literature than in Bangla language and literature, reflecting a perceived proficiency gap. In response to the question 'As a student in your class how would you like to grade (A, B, C, D, E, F) yourself?' students provided their self-assessment about their academic performance in different subjects. The following chart shows students' self-assessment reports:

Eng Lang	Eng lit	Bangla lit	Bangla lang	Math	Science	Art	Games	Spelling & Dictation in Bangla	Spelling & Dictation in Bangla	Creative writing
A+=4	A+=3	A=1	A=2	A=4	A=4	A+=7	A+=3	A=1	A+=6	A=3
A=10	A=9	B= 6	B= 6	B= 6	B= 6	A=9	A=17	B= 5	A=10	B= 7
B= 9	B= 14	C=8	C=7	C=10	C=8	B= 10	B= 10	C=8	B=9	C=9
C=7	C=4	D=7	D=8	D=4	D=5	C=4		D=12	C=5	D=11
		E=5	E=3	E=4	E=7			E=4		E=5
		F= 3	F= 6	F= 2						
									N = 30	

Table-2: Students' self-assessment report

The table-2 summarizes students' self-assessments of their academic performance across various subjects, revealing distinct confidence levels. Students show higher confidence in English language, art, and games, with many rating themselves in the A and B categories. In contrast, their self-assessments in Bangla literature, Bangla language, and Bangla spelling and dictation are notably lower, with many students placing themselves in the C, D, and lower categories. Therefore, the students have more confidence in handling English spelling and dictation than in performing the same in Bangla.

Interestingly, when asked about their preferred language for communication, a significant number of respondents (N=21) felt more comfortable speaking in Bangla (though not in standard Bangla) but found English easier for writing tasks. Notably, all students (N=30) expressed a negative sentiment towards shifting to a Bangla Medium schooling, citing difficulties in Bangla writing. In response to a question like, 'To answer any creative question in Bangla what do you do?' Several respondents (N=14) commented that they had never considered answering any question they had not previously studied. They stated, "I don't attempt to write". Some of the respondents (N=19) affirmed that it was due to lack of motivation, whereas another significant percentage of respondents (N=9) said that Bangla seemed to be an extremely challenging subject. In this regard a respondent said,

Because of time constraint, I never could finish the Bangla exam (S 17).

Thus, the challenges associated with creative writing in Bangla were highlighted by responses indicating a lack of motivation or, in some cases, extreme difficulty. Time constraints emerged as a notable factor affecting performance in Bangla

exams for a subgroup of students. These findings underscore the complex dynamics of language preferences, proficiency, and perceived difficulties among students.

Data Collected from Parents

The data collected from parents provides rich insights into the language development experiences and challenges faced by their children within a bilingual educational context. To capture the depth and complexity of these experiences, the responses were thematically analyzed. The emergent themes reflect key areas of concern and perception, including language use at home, the influence of English-medium instruction, difficulties in Bangla language proficiency, and parental attitudes toward language support strategies.

Language Use and Parental Choice in Educational Contexts

All parents (N=12) assured that their home language is Bangla but because of the greater demand for English in the job market they admitted their children to English version schools. One parent (P=3) highlights the unforeseen consequence of their child's enrolment in an English-medium school, where the child's Bangla proficiency lags, leading to academic challenges:

All of my family members speak Bangla. I was afraid that my daughter would struggle with an English version of school and whether it would become a pressure for her. But now I see her Bangla is weak... her academic Bangla has not developed well. (P 3)

This illustrates the tension between home language practices and institutional language demands, which can result in unintended consequences for the development of Bangla proficiency.

Concerns over Language Development and Proficiency Imbalance

A notable number of respondents (N=8) expressed concern over the slow language development of their children, with some attributing it to an apparent reluctance to engage in verbal communication. In response to the question, “How do you see your child’s language development? Do you think his/her English and Bangla proficiency is the same?” a number of parents reported that the improvement in Bangla was very slow (N=8). Some of the respondents (N=6) shared that their children seemed unwilling to talk to others. Parents also reported that their children’s Bangla proficiency was weaker compared to their English skills. Two respondents said,

They cannot elaborate any ideas like their non-LBLD classmates. In reading they misread and most often cannot find the inner meaning of a text. (P 11, P 2)

While responding to the next question from the researchers, “What are the problems that your child encounters in reading and writing Bangla?” parents identified specific difficulties in reading and writing Bangla, including an inability to elaborate ideas and misconceptions in text interpretation. In response to the question, “What is your child’s motivation level in reading Bangla texts?” the respondent parents (N=7) said that they use Bangla as their home language, yet their children’s development in reading and writing in Bangla is not satisfactory. In comparison, their proficiency in English is better than in Bangla. Parents (N=11) pointed out spelling as the most difficult area. Another parent shared,

My son can never complete a Bangla examination because of the ratio between the duration of the exam and the tasks they need to complete does not match, the time is insufficient. My son always leaves at least one question unanswered and eventually gets lower grades. (P 10)

Dependence on English for Comprehension

Many parents (N=7) noted their children's tendency to seek English equivalents for unfamiliar Bangla terms. This reliance on English synonyms extended beyond academic reading to everyday communication.

When my son faces any difficult Bangla word, he asks me what its English term is. While reading a Bangla textbook, if he comes across any unknown word, he asks for an English synonym for it. In everyday communication, he does the same thing. For instance, if he goes to buy something and the shopkeeper says the price in Bangla, he will turn to me and ask what the number stands for. (P 8)

Parental support in Bangla was found to be limited. While some parents (e.g., P 2) expressed openness to using Bangla explanations to improve their children's proficiency, most lacked the time or resources to provide such support.

If we reply using one or more Bangla synonyms, they may get used to it... it may help in improving their Bangla, I guess. (P 2)

In response to a relevant question, "Have you ever supported him with a wider and clearer explanation in Bangla in such a case?" the parent replied,

No, but I think my son understands English better than Bangla. (P 4)

So, concerns about reliance on English translations and the preference for English synonym clarification indicate complex dynamics in language preference and proficiency among these bilingual learners.

Challenges in Writing Bangla

Three respondents (P=4, P=7, and P=9) shared that while writing their children frequently forgets the graphic symbols of the Bangla alphabet. This lack of fluency in Bangla writing further exacerbates their difficulties in performing well in assessments.

Lack of Engagement with Bangla Learning Materials

Parents were also asked about the motivation level of their children for reading Bangla texts. Parents (N=12) reported that their children found Bangla difficult. They preferred to read English storybooks and watch English cartoons or films. This limited exposure and interaction with Bangla texts appears to negatively affect motivation and proficiency.

My child prefers reading English books. They find Bangla boring and hard. (P 7)

Positive Attitudes toward Integrating Bangla in Subject Instruction

Interestingly, parents acknowledged the potential benefit of teaching two or three subjects in Bangla to enhance language proficiency. In response to the question, “What do you think, if they are taught two or three subjects in Bangla in school, their Bangla will improve?” the parents answered positively and supported the idea. In this regard, one parent’s opinion was particularly interesting. He said,

Bangla is taught in schools as a subject only. There are some subjects like moral science, Bangladesh and Global Studies, etc., that can be taught in Bangla. My child has some problems... I mean she takes time in learning. We cannot teach her Bangla at home... she has huge academic pressure from school. So their difficulties with Bangla remain as difficulties.

But I think it's a good idea to teach one or two more subjects in Bangla. (P 6)

Findings from parents reveal concerns over their children's weak Bangla proficiency despite Bangla being the home language. While students show better skills and motivation in English, they struggle with reading, writing, and spelling in Bangla. Many rely on English translations, and parents often feel unequipped to support Bangla learning. However, most parents positively viewed the idea of teaching two or three subjects in Bangla to strengthen their children's L 1 skills.

Data Revealed from Observation Record

All the learners were observed for consecutive six months and data was collected after a regular interval (after every three months that means 1st month, 3rd month and 6th month) to keep the record of their visible development in language growth. It has been found that according to the academic record the cases' performance in their language tests remains almost consistent. The grade they achieved in formative tests within this period in Bangla shows that only two cases made slight improvement and another two cases' grade deteriorated at the latest test than their earlier. While in similar tests in English there are six cases whose grade increased slightly, three cases got higher grades and another two cases' grade got down. However, the overall performance of the cases is better in English than in Bangla. Test papers of these cases also revealed that in writing in English they use a more expressive language and a comparatively complex sentence structure. The length of their compositions also increased according to word count, ranging from 10 to 50 words. While in their Bangla answer scripts they wrote short answers using simple sentences and the easiest synonyms available. The standard and the length of their Bangla composition have not

improved in any remarkable manner. Occasionally, sentence structures, irrelevant vocabulary, and expressions typical of spoken language are found in their scripts. For example, instead of দাঁড়িয়ে আছি (standing), they wrote খেড়িয়ে আছি (wandering around); instead of মেঘ-বৃষ্টি (cloud-rain), they wrote বাদল (cloud); and instead of শীত (cold), they wrote হীম (chilling). During the observation period few parents supported with data. Parents reported that their children made more spelling mistakes in Bangla than in English. A parent said,

My son frequently forgets Bangla spellings. In learning English vocabulary and spelling, he uses strategies like mnemonics, but in learning Bangla, he tries to memorize and fails. I noticed my son directly translates some expressions and short sentences from English to Bangla and uses them in both speaking and writing. For example, he says, ‘আমি তার সাথে মিলেছি’ instead of ‘আমার সাথে তার দেখা হয়েছে’ (which means ‘I met him’). Or he says, ‘তারা আপন আপনদের মধ্যে খেলছে’ instead of ‘তারা নিজেদের সাথে / চেনা-জানাদের সাথে খেলছে’ (which means ‘they play with their group mates’). (P 9)

Another parent shared his concern, commenting as,

My child has several issues with ADHD and schooling... he is bullied by his classmates... sometimes teachers misbehave. In the last exam, he failed to pass in Chemistry and Bangla Language. I requested the teacher to shorten the syllabus, but he refused and misbehaved with me. He said my son sleeps in class and questioned what he does at home. I also talked with my son about it, and he replied that the classes are too boring. The teacher only teaches rules which are too difficult, and his voice remains the same throughout the class, like a monotonous song. My son generally achieves good grades in English. I admit he is not the top scorer in his class, but still, it is okay, I think. However, his Bangla does not improve, and

I am really afraid whether he can pass the board exam. (P 11)

The observation revealed that learners showed better progress in English than in Bangla, with improvements in English writing complexity and length. Bangla performance remained mostly stagnant, marked by spelling errors, simple sentences, limited vocabulary, colloquial expressions, and direct English translations. Parents reported challenges such as ADHD, bullying, and a lack of teacher support affecting Bangla learning.

Discussion

The comprehensive data collected from teachers, students, and parents provides a clear understanding of the dynamics surrounding Content and Language Integrated Learning (CLIL), language proficiency, and preferences in a bilingual educational context. Teachers generally express positive attitudes towards CLIL, indicating that they believe students benefit from this approach, and that it contributes to both subject knowledge and language skills. The data reveals a consensus among educators that teaching subjects in English increase vocabulary and enhances students' English usage outside the classroom. Teachers acknowledge strategic use of LI, such as in teaching vocabulary or when students face difficulties in understanding. These results are consistent with Marsh and Langé's (2000) study findings. The notion is that CLIL enhances both subject knowledge and language skills, emphasizing the dual benefits of this approach in a bilingual educational context.

In CLIL-practicing schools in Bangladesh, almost all subjects (seven to eight) are taught in English. The respondent's students reported that English was not a barrier to learning. Those

exposed to CLIL from their elementary years performed better and felt more comfortable with English than with their mother tongue, Bangla. Student data reflect a perceived proficiency gap, with students assigning themselves higher grades in English (L2) than in Bangla (L1), and expressing a preference for English in creative writing. Even though Bangla is their native language, they feel less confident using it academically. These points support the argument that early CLIL exposure may negatively affect L1 academic development among LBLD students, especially when L1 instruction is marginalized. The emphasis on English appears to create a proficiency gap that influences students' perceptions of language competence and preferences. While CLIL principles support the simultaneous growth of all taught languages, the current practice does not sufficiently promote L1 development.

The study also identifies several factors that contribute to the disparities in language development among students with LBLD in CLIL schools. One significant factor is instructional emphasis. The predominance of English as the medium of instruction for most subjects reduces the time and focus dedicated to academic Bangla. Although teachers acknowledge the strategic use of Bangla in certain situations, their prioritization of English for content delivery is insufficient to support meaningful L1 development.

Motivation and exposure also play a crucial role. Students exhibit greater motivation and comfort with English, which is reinforced by more engaging instructional methods and materials. Bangla, despite being their home language, is often less favored for reading and writing tasks, further limiting practice and weakening proficiency. Parents reinforce these observations,

reporting frequent spelling difficulties, direct translations from English, and a general lack of enthusiasm for learning Bangla. These findings align with Cummins' Linguistic Interdependence Hypothesis (1979), which suggests that proficiency in one language can influence the other. However, the current CLIL practices seem inadequate in fostering balanced academic language development for students with LBLD, raising concerns about their preparedness for academic demands in Bangla. Another contributing factor is parental support and the home environment. While Bangla is spoken at home, many parents feel unequipped to assist their children with academic tasks in the language. Additionally, time constraints and heavy academic pressure limit opportunities for Bangla learning at home, further affecting students' performance in examinations. Lastly, student-specific challenges and contextual issues exacerbate the situation. Students with LBLD often face additional barriers such as ADHD, bullying, and boredom in Bangla classes, all of which hinder their engagement and learning. Reports of teacher misbehavior and refusal to accommodate individual needs further intensify these challenges.

However, as a potential solution to address the imbalance in language development, both parents and teachers support the integration of two or three subjects in Bangla within the school curriculum to strengthen students' proficiency in their first language. Teachers expressed strong consensus that introducing subjects such as Moral Science and Bangladesh and Global Studies in Bangla could significantly aid L1 development.

This multifaceted dataset underscores the complex interplay of language proficiency, preferences, and challenges in a bilingual educational context, offering valuable insights for

educators, researchers, and policymakers to tailor effective language instruction strategies. The findings support the notion that a thoughtful integration of CLIL, strategic use of the native language, and addressing motivational factors can contribute to a more holistic language development approach for students in bilingual settings.

Recommendations

Based on the findings and discussion, the following recommendations are proposed to address the disparities in L1 (Bangla) development among students with Language-Based Learning Disabilities (LBLD) in CLIL-based bilingual education settings in Bangladesh.

Firstly, schools should adopt a more balanced approach to bilingual education by integrating Bangla more meaningfully into the curriculum. While CLIL has been effective in enhancing English (L2) proficiency, the current overemphasis on English has limited students' exposure to and development in Bangla. Introducing two or three subjects, such as Moral Science or Bangladesh and Global Studies, in Bangla can provide necessary academic input in the first language and help strengthen students' L1 skills. This dual-language approach can promote balanced language development and better align with the principles of CLIL, which advocate for the growth of all languages used in instruction.

Secondly, to address students' difficulties in Bangla spelling, vocabulary, and academic writing, teachers should incorporate targeted instructional strategies tailored to the needs of students with LBLD. Techniques such as guided writing, contextual

vocabulary instruction, and scaffolded support can gradually build confidence and competence in Bangla, particularly in academic tasks.

Thirdly, parental involvement plays a critical role in supporting students' L1 development. Schools should consider conducting workshops to guide parents on how to effectively assist their children's Bangla learning at home. Alongside this, user-friendly resources and tools should be provided to help parents support homework and reading activities. Establishing open and collaborative communication channels between teachers and parents is also essential, as it enables the timely identification and resolution of language-related challenges. These combined efforts can significantly enhance academic language development in Bangla and contribute to a more equitable and supportive bilingual education system.

Finally, it is important to recognize and respond to the additional challenges faced by students with LBLD, such as ADHD, classroom boredom, peer bullying, and lack of teacher empathy. Schools should develop inclusive policies and offer regular training for teachers to build awareness and equip them with strategies for supporting students with diverse learning needs.

Conclusion

To sum up, this extensive research explores the complex dynamics of content and language integrated learning (CLIL), providing insights into language acquisition, competency, and difficulties in a bilingual learning environment. The study uncovers a proficiency gap among students, favoring the CLIL language (English) over their mother tongue (Bangla). This

unexpected trend suggests a potential imbalance in language development, urging a reevaluation of bilingual education strategies. Parental perspectives reveal concerns about slow language development, motivational challenges, and instances of direct translation from English to Bangla, highlighting areas for targeted support. The six-month performance data indicates consistent results in language tests but underscores challenges faced by students with LBLD, including bullying, academic struggles, and teacher misbehavior. Addressing these issues is imperative for the overall well-being and academic success of students in bilingual settings. The study emphasizes the need for a nuanced approach, balancing CLIL principles with strategic use of the native language and addressing motivational factors. Tailoring instructional strategies to the diverse needs of students, particularly those with LBLD, is crucial for fostering holistic language development. These insights provide valuable guidance for educators, researchers, and policymakers seeking to enhance the effectiveness of bilingual education programs and create an inclusive learning environment for all students.

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Women in Bangla Language Movement: Unsung Heroes

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Abstract: The iconic Language Movement holds great significance in the history of Bengal as well as the globe at large. During this milestone event, the Bengali women had united with the men to take part in the movement crossing the boundary of conservative society. Sufia Ahmed (1932-2020), Rawshan Ara Bachchu (1932-2019) and other women tirelessly took part in various meetings, processions and relevant actions. By the beginning of 1952, the Language Movement took a serious turn. On 21 February the students were determined to violate Section 144 imposed by the government. When the male and female students emerged in groups, shouting slogans, the police resorted to baton charge; even the female students were not excluded. Through a long and hard struggle Bangla language got the status of national language. Simultaneously, the success of the Language Movement greatly increased the self-confidence of women. As a result, women bravely participated in various national agitations that took place later. Moreover, the objective of the research is to analyze how the Bengali women broke the long-standing paternalistic conservatism and got involved in the Language Movement inspired by nationalism. Through this movement tried to uncover the cultural awareness as well as the nature of Bengali women's

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progress. It should be mentioned that Analytical method has been followed to prepare this research work.

Keywords: Agitation, Conservatism, Memorandum, Baton charge, Commemoration, Dodged.

Introduction

The role of Language Movement in the creation of Bengali nationalism is undeniable. Bangla is mother tongue and life language of Bengali. After the partition of the country in 1947, the ruling group of Pakistan tried to impose Urdu as the state language on the people of East Pakistan. For this reason, the national movement to establish the mother tongue as the state language began to take root. Women also actively participated in this movement shoulder to shoulder with men. Since the beginning of the 20th century, an unforgettable awakening took place in the life of Bengali women. Since then, women have not remained behind in times of calamity, crisis, but have participated in the struggle simultaneously and equally with men. With this courage and promise, women have bravely come forward to protect the mother tongue. Sufia Ahmed and Rawshan Ara Bachchu are among the women who played an adventurous role in the front line of the Language Movement crossing the barriers of the conservatism. They joined spontaneously in meetings, processions, fundraising and various activities to conduct the movement. They even accepted police torture by violating Article 144 on February 21, 1952 and continued their struggle until official status of Bangla language was obtained. In the discussion article, an attempt has been made to analyze the reasons for the participation of Sufia Ahmed, Rawshan Ara

Bachchu and other women in the Language Movement, the pattern and role of their participation in the agitation and above all its importance in history.

Objectives of the Research

The objective of the research is to analyze how the Bengali women broke the long-standing paternalistic conservatism and got involved in the Language Movement inspired by nationalism. Through this movement tried to uncover the cultural awareness and the nature of Bengali women progress. To determine the extent to which the success of this struggle affects the women's emancipation movement in Bengal. Above all, to make the current women society more aware by learning lesson from this movement.

Literature Review

Very few esteemed scholars are discussed on women's participation in Bangla Language Movement. For instance, *Bengali Language Movement and Creation of Bangladesh* (Dhaka, 2011) by Anwar Dil and Afia Dil, *Vasha Andoloner Itihas* (Dhaka 2015) by Rafiq Ahmed, *Vasha Andoloner Itihas* (2003) by Bashir al Helal, *Purbo Banglar Vasha Andolon o Totkalin Rajniti* (1995) by Badruddin Umar and so on. These books are the significant source of knowledge regarding the Language Movement in Bengal. But, there is no scholars particularly analyze on the essential contribution of women in Bangla Language Movement. Therefore, this is the research gap here. Women's society participated in the Language Movement as the front-liner soldiers. Many of them were behind the scene. At large they did not get their proper national and historical

recognition. This article has been prepared realizing the need for research on women in present Bangladesh.

Research Methodology

Contemporary newspapers, autobiographies and interviews of women concerned have been used as primary sources in writing the article and a range of informative writings written by modern researchers have been used as secondary sources. It should be noted that the analytical research method widely used in humanities and sociology studies has been followed in writing the article. This article focuses on the analysis of the data and information obtained from the interviews as well as different sources.

Historical Background of the Study and Women's Involvement in various events

In the context of the Language Movement, after the partition of the country in 1947, the ruling group declared Pakistan as an Islamic state. Urdu was given the status of an Islamic language as the sole state language of the entire people. A strategic decision was imposed towards the people (Dil & Dil, 2011). It is very easy for the Bangla speaking people to understand that the imposition of Urdu language is nothing but a conspiratorial ploy by the Pakistan government. Then Dr. Muhammad Shahidullah (1885-1969) demanded recognition of Bangla as the state language of this country through his writings. Kazi Motahar Hossain (1897-1981), Muhammad Enamul Haque (1902-1982) and Abul Mansur Ahmad strengthened this demand. Rawshan Ara Bachchu (Interview, March 13, 2018). As a result, writings on the language question started in contemporary newspapers. Note that in 1947, an editorial in *Begum* periodical demanded

to make Bangla the national language. In an article entitled “National Language of Pakistan”, Mohsena Islam advocated making Bangla the national language (Begum Patrika, 1947: 4)

In November 1947, East Pakistan’s writers, artists, journalists, academicians, philanthropists and high-ranking government officials submitted a memorandum to the then Prime Minister demanding Bangla as the state language of East Pakistan. It must be emphasized that the editor of *Jayashree Patrika*, Leela Nag (1900-1970) and *Nikhil Bangla Muslim Women Association* editor Anowara Chowdhury signed the memorandum (Kabir, 2014). Thus, the role of men as well as women in the question of national language was observed from the beginning. On January 11, 1948, when Abdur Rab Nishtar (1899-1958), the minister of transport and communications of the government of Pakistan, visited Sylhet on an official visit, the student society there gave a written letter demanding Bangla as the state language (Sufia, 2016). It should be pointed out that a memorandum containing the demand to make Bangla the state language signed by Sylhet *Mahila Muslim League* district committee president Jobeda Khatun Chowdhury, vice president Syeda Shahera Banu, secretary Syeda Lutfunnesa Khatun, Syeda Najibunnessa Khatun, Rabeya Khatun and many more women was sent to East Pakistan chief minister Khawaja Nazimuddin (1894-1964). (Amin, 2010).

Inversely, on February 23, 1948, Dhirendranath Dutta, the representative of East Bengal in the Pakistan *Gana Parishad* proposed to use Bangla as one of the main languages of the *Gana Parishad* along with Urdu and English (Umar, 1995). But the leader of the *Gana Parishad* and the prime minister of the central government, Liaquat Ali Khan (1895-1951), rejected this demand. On March 2, 1948, the *Rashtra Bhasha Karma*

Parishad was formed in the premises of Dhaka University consisting of students, intellectuals, cultural and political workers (Sufia, 2016). In the same year on March 21, the governor general of Pakistan Mohammad Ali Jinnah in a large public meeting at the *Race Course Maidan* in Dhaka, declared “But let me make it very clear to you the state language of Pakistan is going to be Urdu and no other Language” (Mukul, 2014). He uttered these words again in the convocation speech held at Curzon Hall of Dhaka University on March 24 (Khanam, 2015). As a result, on 11 March 1948, a general strike was observed throughout East Pakistan. Many students participated in the strike and picketed. Begzadi Mahmuda Nasir, Laila Arjumand Banu, Mumtaz Begum, Sultana Razia, Afroza, Lily Khan, Khaleda Khanum and Maleka Begum participated in the strike in East Pakistan along with the men. Lulu Bilquis Banu, Mehrunnisa, Dil Afroz, Laila, Shamsun Nahar and other brave women participated in the picketing. Note that this was the first public movement of women held in Dhaka (Kabir, 2014).

In December 1949, the government had to cancel the decision of the education minister to write Bangla in Arabic script in the face of great pressure. Bengali women started organizing with men. In this connection Maleka Begum mentioned,

Sufia Kamal and some members of the *Wari Mahila Samiti*, led by Leela Nag, worked in horse-drawn carts, sometimes on foot, to prevent communal riots in Dhaka in 1950. Through these works, the women of Dhaka began to organize themselves with new zeal in forming associations. Juiful Roy took the initiative to reorganize the ‘East Pakistan Women’s Association’ (Begum, 1989).

Meanwhile, Leela Nag, Sufia Kamal and Lutfunnesa tried to prevent riots by visiting different areas of Dhaka and Narayanganj. On the other hand, Kamrun Nahar Laili, Fatema

Khatun, Samina Khatun, Halima Khatun (all were progressive students of Dhaka University) and other leaders such as Nurjahan Murshid, Rokeya Rahman Kabir, Begum Mohiuddin, Raisa Haroon worked to organize women in the anti-Pakistani movement (Hossain, 2006). In 1951, *Dhaka University Sangram Parishad* was formed.

Women in the Language Movement in 1952

On January 27, 1952, Prime Minister Khawaja Nazimuddin announced the decision to make Urdu the state language in a speech at Dhaka's *Paltan Maidan* (Dil & Dil, 2011). An all-party meeting was convened on 31 January 1952 at the Bar Library of Dhaka. The then student of *Eden Mohila College* Mahbuba Khatun attended this meeting and she said, "Girls will sacrifice their blood if necessary to accept the demand of making Bangla the state language" (Umar, 1988). *Sarbadaliya Rashtravasha Sangram Parishad* was formed to determine the next course of action, one of whose members was Anowara Khatun, Member of the legislative council of East Pakistan (Ahad, 2004). Sufia Ahmed and Rawshan Ara Bachchu were in direct contact with prominent members of this council.

Basically, Sufia Ahmed¹ and Rawshan Ara Bachchu² are among the women who played an effective role in the forefront of the Language Movement of 1952. Both of them were students of Dhaka University during the historical Language Movement. Meanwhile, they went to different educational institutions and organized the students to ensure their participation in the Language Movement. They participated in strikes, meetings and marches to make the movement a success. They have also collected money from neighborhoods to meet the expenses of conducting the movement. Regarding the reasons for participating in the Language Movement, Sufia Ahmed mentioned,

I participated in the Language Movement of 1952 because of my conscience. For the need to protect the dignity of the mother tongue as well as independent existence of the Bengali nation. Like everyone I had an innate attraction towards mother tongue. There was no political or party reason behind it. After getting admission in the University of Dhaka, the demand to make Bangla the national language naturally crossed my mind as a conscious student. This demand agitated the entire student society. Sufia Ahmed (Interview, October 7, 2017).

On the contrary, Rawshan Ara Bachchu said in the commemoration of her participation in Language Movement,

Participating in the great Language Movement during my studies at Dhaka University is the glorious chapter of my life. ... Actively participate in the Language Movement motivated by the sense of nationalism. This is the movement with self-confidence to establish the mother tongue in self-respect. Rawshan Ara Bachchu (Interview, March 13, 2018).

In fact, there was no specific political motive behind the participation of Bengali women in the Language Movement. They are motivated by cultural consciousness and feel the urge to protect their mother tongue and own culture. The sense of nationalism among Bengali women is noticeable at this time.

On February 4, strikes, meetings and processions were held. Black Flag Day was observed in East Pakistan from 11 to 13 February. Rawshan Ara Bachchu (Interview, March 13, 2018). Plans were made to encircle the East Pakistan legislative council on 21 February with a province-wide strike as well as student strike. Women play a strong role in the implementation of this plan. Incidentally, Sufia Ahmed mentioned in the commemoration,

About two weeks before of 21 February we started preparing for the strike. Among my classmates and colleagues in the

movement were Khorsedi Alam Doli, left-wing female journalist Laila Samad, Dr. Shafia Khatun and Sara Taifur. In order to organize the students, we campaigned in *Anandamoyi Girl's School*, *Kamrunnesa Girl's School*, *Bangla Bazar Girl's School* and *Eden Mohila College* in Dhaka. Everywhere we got a huge response and we were convinced that the strike program would be a total success. Sufia Ahmed (Interview, October 7, 2017).

The Pakistani government imposed Section 144 on the entire city of Dhaka on 20 February. On the night of February 20, members of *Rashtra Bhasha Sangram Parishad* took a strict decision to violate Article 144. On February 21, 1952, a large public meeting was held in *Amtala*, arts building, Dhaka University (now the emergency department of *Dhaka Medical College Hospital*). The university students collected agitators from various girl's school on foot. Sufia Ahmed brought the girls of *Anandamoyi* and *Banglabazar schools* together to *Amtala*. Sufia Ahmed reminiscingly mentioned,

On the way to enter this public meeting, when I met my former acquaintance, the then SP of Dhaka, Masud Mahmud, he advised me to go back home. The government has ordered the police administration to suppress the protestors with strict hands. So, I may be in danger. But I joined the public meeting without heeding his words. Sufia Ahmed (Interview, October 7, 2017).

It is noted that the then vice chancellor of Dhaka University Syed Moazzem Hossain along with proctor professor Mozaffar Ahmed, dean Zuberi and Dr. Newman, he came to the *Amtala* public meeting that day and requested the students not to violate Article 144. Ignoring the prohibition of the administration, the indomitable youth decided to take out a procession in groups of 10, each with a girl in the front, in the face of resistance from the police. Sufia Ahmed uttered,

The first group of girls headed by Shafia Khatun, Shamsun Nahar, Rawshan Ara Bachchu, me (Sufia Ahmed), Sara Taifur and a girl from *Eden College* (name not known) went ahead. The objective was to proceed towards the legislative council of East Bengal and present the demands to the Members of the Parliament. But as soon as we crossed the police barricade, we were dispersed as the police batons and fired tear gas. At this time several other groups of girls came out and faced similar obstacles. We all get hurt. Sufia Ahmed (Interview, October 7, 2017).

On that day, everyone was more or less injured as well as tears started pouring out of their eyes due to tear gas. Sufia Ahmed with her companions took shelter in the flower garden by climbing the wire fence of the residence of Osman Gani (Provost of S.M Hall) and washed their eyes and faces with cold water. After recovering a bit, they proceeded towards Dhaka Medical College for first aid in the afternoon. At this time, people poured into the streets. The crowd erupted into protest mainly against the police attack on the students. Rawshan Ara Bachchu (Interview, March 13, 2018).

Rawshan Ara Bachchu was one of the women who violated Section 144 on 21 February. She said, the students divided into different groups and gathered the students of *Kamrunnesa Girl's School, Banglabazar Girl's School* and *Eden Mohila College at Amtala*. But the social system of that time was very conservative. Girls did not have the opportunity to roam freely everywhere. She mentioned in this context,

While the Language Movement is at its peak on February 21, university students will face social barriers. University authorities will expel them from departments and halls or parents will stop their studies. Girls ignored everything and joined the Language Movement on an equal footing with the struggling brothers. Rawshan Ara Bachchu (Interview, March 13, 2018).

Some students including Sufia Khatun, Sufia Ali, Bebi, Rokeya and more used to secretly attend many meetings and give their well-thought-out opinions about the strategy of conducting the movement. Again, many girls including Nurunnahar Kabir used to stay up all night to write posters for the movement. Rawshan Ara Bachchu (Interview, March 13, 2018). Rawshan Ara Bachchu stated regarding her strong participation in violating Section 144,

That day I went out in the third group. My conviction is, I will break the barricade of the stick. I hold the police baton in front of me tightly with both hands and push it back and forth. Thus at one point the stick barricade was broken. Immediately the police baton charge started. I was not spared from this either. In the tear shell, the surroundings become dark. Eyes were watering. The city of Dhaka shook with the slogans of the aggrieved people, “we want Bangla as the national language”, “we want the release of the royal prisoners”, “Police oppression should be stopped”, “Let’s go, let’s go to the assembly” and so on. Rawshan Ara Bachchu (Interview, March 13, 2018).

She dodged police tear shells and ran across the barbed wire fence and entered the house of the provost of Salimullah Muslim Hall, where Sufia Ahmed and other women activists had also taken shelter. Clashes between the student mob and the police then escalated, with the police firing incessantly. A large number of students were injured. It is marked that the session of Constituent Assembly was going on at the time of firing in the procession on 21 February 1952, the news reached here. Therefore, Maulana Abdur Rashid Tarkabagish raised the demand that the shooting should be investigated. Then Anowara Khatun gave a clear speech demanding justice for the shooting. After a heated argument with speaker Abdul Karim, 35 members including Anowara Khatun walked out of the council chamber.

In this way, women set an example of bravery in the Constituent Assembly that day (Hossain, 2016).

Language soldier Halima Begum pushed police rifles and marched forward shouting slogans. She was not deterred by the police baton charge and tear gas attack. Meanwhile, the police opened fire and Rafiq's skull was blown off by the bullets (Hossain, 2016). Noted, Rafiq was the first martyr of the great Language Movement. Gradually Salam, Barkat and Jabbar were martyred. Many girls went to the hospital to donate blood as well as nurses served the wounded. It must be noted, Nadera Begum, leader of *Women's Communist Party*, inspired the participation actively of women in the movement. The contribution of Nadera Begum to Language Movement is unparalleled.

On February 22, strikes, marches and protests were held across the country including Dhaka. Although a large number of women could not participate in these processions, they sprinkled flowers on the procession from the roof of their houses to show solidarity and inspiration. Many women wrote posters all night, made badges with black *sarees*. New techniques have been developed to manage the movement. On the afternoon of February 22, Anowara Khatun spoke against student killings and police torture in the East Bengal Legislative Council. She mentioned, "On February 21, 8 girls including Sufia Ibrahim (Ahmed), daughter of Dhaka High Court Justice Ibrahim and Rawshan Ara (Bachchu) were seriously injured" (Proceedings of the East Bengal legislative assembly, 1952).

Women's participation outside of Dhaka

The Language Movement went beyond the limits of Dhaka metropolis and spread throughout the country. Momotaz Begum, the then head teacher of *Morgan Girl's School* in

Narayanganj, was imprisoned for energizing the people of Narayanganj in a united movement by swearing the blood of martyrs. Police tortured her in jail. Moreover, under the pressure of the government, Momotaz Begum was divorced by her husband (The Daily Prothom Alo, 2020). Noteworthy that some of the students such as Ila Bakshi, Benu Dhar and Shibani were imprisoned along with Momotaz Begum. Furthermore, three women in Narail district, Sufia Khatun, Rizia Khatun and Ruby started movement in locally as well (The Daily Prothom Alo, 2020). Saleha Begum (student of class-X at *Mymensingh Muslim Girl's School*) of Kulaura in Sylhet was expelled, School girl of Khulna Hamida Khatun was humiliated for the uniting women. In addition, Jobeda Khatun, Shahera Banu, Syeda Lutfunnesa Khatun, Syeda Najibunnesa Khatun, Rabeya Ali, Rabeya Khatun, Pratibha Mutsuddi, Taleya Rahman in Chattogram did Language movement as well. Rawshan Ara Bachchu (Interview, March 13, 2018).

Struggle following the 1952

After 1952, the women of East Bengal began to freely and spontaneously participate in various national struggles. The decision to celebrate 21 February 1953 as “Martyr’s Day” was taken by the *Sarbadolio Sangram Parisad* (Dil & Dil, 2011). Students participated in *Prabhat Feri* (early morning procession) with festoons in the morning on 21 February. Farida Bari Malik, Jahrat Ara, Khaleda Fancy Khan were participated here. On this day, the students of different educational institutions of East Bengal took the initiative to build martyr monument. Note that when the students of *Eden Mohila College* and *Dhaka College* tried to build a language martyr monument, they failed due to the Principal’s obstruction (Islam, 1982). Consequently Halima Khatun delivered a speech at a meeting of the *National*

Language Struggle Council in the afternoon. On the other hand, in 1954, Shamsun Nahar Mahmud, Mahmuda Khatun Siddika, Sara Taifur, Hosne Ara Modabber, Bilkis Banu, Shahzadi Begum, Khodeja Khatun, Anwara Bahar Chowdhury, Selina Bahar Chowdhury and so on convened a discussion meeting (Hossain, 2006).

On the morning of February 21, 1955, the students of various educational institutions came to Dhaka University premises wearing black badges and chanted slogans in thousands of voices, “We want Bangla as the national language”, “Martyr memory is immortal”, “We want the release of royal prisoners” and “Stop police brutality” (Kabir, 2014). The police torture started again hence 11 students including Jahrat Ara, Pratibha Mutsuddi, Kamrun Nahar Laili, Farida Bari Malik, Hosne Ara, Anwara Begum, Laila Noor, Talea Rahman were arrested (Helal, 2003). It can be seen that except Rawshan Ara Renu the remaining ten girls got released from jail by signing the bond under the pressure of their parents and the government. Rawshan Ara firmly uttered, “I will not sign the bond, I will leave the day the government releases me”. Rawshan Ara Bachchu (Interview, March 13, 2018). This statement shows the courage and determination of a woman’s self-esteem.

After a long struggle, Bangla was given constitutional recognition as the state language of Pakistan along with Urdu in Article 214 of the first constitution in 1956 (Helal, 2003). The Language Movement started with the demand to make Bangla the state language, but gradually turned into the demand for Bengali rights, independence and autonomy. Thus, from 1952 to 1971 the Language Movement has inspired every turn of the Liberation War of Bangladesh. On November 26, 1999,

UNESCO recognized February 21 as *International Mother Language Day* (Hossain, 2016). In this way, the importance of Language Movement has been recognized as well as the status of Bangladesh has increased in the globe.

Importance

The history of self-sacrifice of the women of East Bengal after the success of the Language Movement is very glorious. In this agitation, the role of women was wide ranging from housewives to educational institutions to public assemblies. In each case the woman was active in her role. However, history has not established women in real dignity and from the place of equality between men and women. The contribution of women has not been properly evaluated in the main stream of history. Although some writings acknowledge the contribution of women in the Language Movement to a limited extent, its detailed analysis is not available. An attempt at a patriarchal perspective is also visible here in the writing of history. Rawshan Ara Bachchu complained that the written history of the Language Movement is distorted and biased. There the contribution of women is not properly appreciated. Conversely, the contribution of women agitating in the remote areas of the country has not fully come up. Historians only speak for the male participants. But the movement took place as a result of the sacrifices of both men and women.

Here mentionable that no woman was made a direct member of the *Rashtrabhasa Sangram Parishad*. Moreover, the students of Dhaka University were given to girl students the responsibility of collecting money to conduct the movement. They fulfill this duty properly. Since the women at that time were not doing

job, many of them took off their favorite jewelry and some donate their small savings. Further, Syeda Khatun (mother of late National Professor of Bangladesh Dr. Anisuzzaman) left her gold chain on the altar of *Shaheed Minar* (language martyr monument), which was first built in the premises of *Dhaka Medical College*. It is a symbol of respect for the martyrs of the Language Movement and the financial support to continue the movement until the status of the mother tongue is achieved. As follows, housewives worked behind the scenes to accelerate the movement with money, crossing the barrier of conservative family wearing *burqa* and participated in the processions. School and college girls also raised slogans in their respective institutions. They shouted slogans like “We want Bangla as the national language”, “Bengali should not be exploited”, “We want the freedom of royal prisoners” and so on. Mainly inspired by cultural values and motivation to get rid of the crisis of existence, women ignored thousands of obstacles and they spontaneously participated in the Language Movement.

In the memoirs of Sufia Ahmed and Rawshan Ara Bachchu, they were not backward in any way even though they were women. Being women the police did not treat them with any courtesy. They have confessed to police assaults in the same way as men agitator. Nevertheless, the success of the Language Movement greatly increased the self-confidence of women. As a result, women bravely participated in various national struggles that took place later.

Conclusion

To conclude, it can be said that Bengali nationalist consciousness erupted by the Language Movement. Success comes only through

the spontaneous participation of people from all levels of the country in this agitation. Sufia Ahmed, Rawshan Ara Bachchu as well as many other women participated in the movement as a whole, regardless of the conservative society's blood eyes. Their role in the Language Movement is manifold. They participated in strikes, meetings, visited various educational institutions, motivated students to participate, wrote posters, make black badges, collected fund for movement needs. As women, they never considered themselves weak. Ignoring social fears and giving up the illusion of their own life. They remained steadfast in making the movement successful amid police baton charge, teargas and bullets. In fact, these women are national heroes. Nonetheless, the Language Movement took Bengali women's awakening and women's emancipation movement far ahead. At present, the story of women's successful participation in the Language Movement is being spread in various ways. A number of women are being given *Ekushey Padak* every year by the government of Bangladesh. Road number 12 at Dhanmondi, Dhaka has been named after Sufia Ahmed. The *International Mother Language Institute* has been established, the field of research here has to be expanded. Then again, true history can only be written if the position of women is determined from a place of gender equality. The appreciation of women in the patriarchal society has so far been very limited, which is more important to expand. The real history of the Language Movement should be thoroughly presented to the new generation, only then they will be guided in the right direction and new horizons will be opened in the days to come.

Notes

1. Language soldier Dr. Sufia Ahmed was born on November 20, 1932. Daughter of Muhammad Ibrahim (Justice,

former Vice-Chancellor of Dhaka University and former Law Minister of the Central Government of Pakistan) and Lutfunnesa Ibrahim. Sufia Ahmed obtained B.A (Hons.) in 1953 and M.A in 1954 from the Department of Islamic History and Culture, *University of Dhaka*. She awarded her Ph.D from the University of London in 1960. She has taught in the department of Islamic History and Culture of the University of Dhaka. Sufia Ahmed was the first woman national professor of Bangladesh. This woman who received *Ekushey Padak* passed away on April 9, 2020.

2. Language soldier Rawshan Ara Bachchu was born on December 17, 1932 in Uchlapara village of Kulaura upazila of Moulvibazar district in Bangladesh. Her father's name is AM Aref Ali and mother is Manirunnesha Khatun. Rawshan Ara Bachchu obtained BA (Hons.), MA degree from the Department of Philosophy, Dhaka University and B.Ed degree from Teachers Training College. She was associated with teaching as well as emphasized on the importance of education for the advancement of the women in Bangladesh. Note that she departed on December 3, 2019.

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Rawshan Ara Bachchu's Interview on March 13, 2018. (Interviews were taken by Writer during Her PhD Research.)

News Paper

The Daily Prothom Alo (February 16, 2020).

APPENDIX

Survey on Bangladeshi Freelancers

Total Questions: 17

Name:

Nationality:

Role as

Part-time	Full time
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Freelancer:

Platform:

Upwork	Fiverr	Out of marketplace	All
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1. Improving **English skills** should be mandatory for freelancers.
 Strongly Disagree Disagree
 Neutral Agree Strongly Agree
2. English proficiency boosts confidence in **negotiations**.
 Strongly Disagree Disagree
 Neutral Agree Strongly Agree
3. Higher English proficiency leads to **better-paying projects**.
 Strongly Disagree Disagree
 Neutral Agree Strongly Agree
4. **Listening** to native clients' requirements is the major challenge for freelancers.
 Strongly Disagree Disagree
 Neutral Agree Strongly Agree
5. **Writing** proposals in English is a major challenge for freelancers.

- Strongly Disagree Disagree
 - Neutral Agree Strongly Agree
6. **Speaking** with English Speaking Clients is a major challenge for freelancers.
- Strongly Disagree Disagree
 - Neutral Agree Strongly Agree
7. English-speaking freelancers or Native freelancers get a clear understanding of project requirements **compared** to Bangladeshi freelancers.
- Strongly Disagree Disagree
 - Neutral Agree Strongly Agree
8. Limited English skills reduce freelancers' **competitiveness** as well as overall **earnings**.
- Strongly Disagree Disagree
 - Neutral Agree Strongly Agree
9. **Training programs** can enhance freelancers' competence in English.
- Strongly Disagree Disagree
 - Neutral Agree Strongly Agree
10. The outsourcing industry can grow if freelancers improve their English.
- Strongly Disagree Disagree
 - Neutral Agree Strongly Agree
11. How confident are you in using English for freelancing?
- Not confident at all Slightly confident
 - Moderately confident
 - confident Extremely confident

12. How often do clients comment on your English skills?
 Never Rarely Sometimes Often Always
13. Which area of English is the most challenging for you?(
you can choose more than one option)
 Speaking Writing Listening
 Reading All of the above
14. Have you ever lost a project due to language issues?
 Yes No
15. Would you join a program to improve your English for
freelancing?
 Yes No
16. Government initiatives should include English courses
for
 freelancers. Strongly agree Strongly disagree
 Neutral Disagree Strongly disagree
17. The English curriculum by NCTB would improve
freelancers' communication.
 Yes No

International Mother Language Institute (IMLI) Essay/Article guideline

The subject of the article may be on one of the following aspects or themes:

- a. Mother language situation in Bangladesh and/or in any other country;
- b. Language and Gender;
- c. Necessity for introducing writing-system for the languages that do not have scripts;
- d. Inventory of phonology, morphology, syntax and semantics or inventory of any aspect of mother languages of Bangladesh;
- e. The necessity of preservation and standardization of language in the context of Bangladesh;
- f. Training of primary and secondary language teachers to meet multilingual education in the country;
- g. Preservation and standardization of endangered or nearly extinct languages;
- h. Mother language and sustainable development;
- i. Mother language and Science;
- j. Language policy and language management in mass media;
- k. Linguistic diversity and national development;
- l. Mother language teaching in Bangladesh or beyond;

- m. Necessity for preserving dialects in Bangladesh;
- n. English as a foreign language (EFL) or English language teaching (ELT) or English learning/teaching through blended approach;
- o. Language and Literature;
- p. Sociolinguistics.

Article Structure

Title

Abstract

Keywords

Introduction

Identification of Research Problem/Statement of the problem/Statement of the Topic

Objectives of the research

Literature review

Research Rational

Research Questions

Research theoretical framework

Research Methodology

Discussion

Results and Findings of the research

Recommendation

Conclusion

References

Special Note: Please follow the Reference System
APA 7th edition.

Link: <https://imli.portal.gov.bd/site/page/94efd24a-fa62-44c2-a16e-4a972b57c4b6/->

Rules of Writings

Article (s) will be prepared or composed as per the following guidelines:

- a. The article should be written in **English, unpublished and original one.**
- b. The article should be followed by an Abstract in English (minimum 150-200 words) with 1/2 (.5) inch indentation on both sides 11 points and the key words in 12 points, a short profile of author, phone number, mailing address and e-mail ID.
- c. The main text of the article should be composed on A4 paper in 12 point in **English** (Times New Roman) font following 1.5 line spacing. While submitting hard copies, two (2) sets should be printed on one side.
- d. If there are tables and figures in the main text, their serial numbers (e.g. 1,2,3...) should be provided. Proper caption for each table and figure is essential.
- e. Font: Times New Roman, Font size 12, line space single, first line 0.25 indent & quotation indent 0.5;
- f. **Honorarium** will be given to the writer of the article if it is published in the journal;

Citation will be followed as per the principles of American Psychological Association (APA 7th Edition):

Example

In-Text Citation

- **Narrative citation: According to Smith (1998)**, APA style is an easy citation format for first-time learners.
- **Parenthetical citation:** APA style is an easy citation format for first-time learners (Smith, 1998).
- APA style is an easy citation format for first-time learners (**Smith, 1998: 203**)
- **Citations in Text with no page numbers:**
(Myers, 2000, para. 5)
(Beutler, 2000, Conclusion section, para.1)

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Kimmel, M. S. (2007). *The Gendered Society*. Oxford University Press: London.

Two or More Authors

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Scroggins, W. A., Thomas, S .L., & Morris, J. A. (2008). Psychological Testing in Personnel Selection, Part II: The Refinement of Methods and Standards in Employee Selection. *Public Personnel Management*, 37(2), 185-199.

Two or more authors (up to 20 authors)

Klimonske, R., & Palmer, S. (1993). The ADA and the Hiring Process in Organizations. *Consulting Psychology Journal: Practice and Research*, 45(2), 10-36. doi:10.1037/1061-4087.45.2.10

If an article has 21 authors or more, list the first 19 authors, then insert an ellipsis (...) and then the last name and first initials of the last author.

Wolchik, S. A., West, S. G., Sandler, I. N., Tein, J., Coatsworth,

D., Lengua, L., Johnson, A., Ito, H., Ramirez, J., Jones, H., Anderson, P., Winkle, S., Short, A., Bergen, W., Wentworth, J., Ramos, P., Woo, L., Martin, B., Josephs, M., ... Brown, Z. (2005). Study of the brain. *Psychology Journal* 32(1), 1-15. doi:10.1037/1061-4087.45.1.11

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Personal Communications

Personal communications such as Emails, lectures, or conversations should be cited as personal communications in the text only (not in the reference list) in the following format:

R. J. Smith (personal communication, August 15, 2015)



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