International Journal of Research Publication and Reviews

Bridging the Gap: The Role of Technology in Supporting English Language Acquisition Among Indigenous Learners in Bangladesh

Hridoy Kumar Tripura

Master of Arts, Department of English Language and Literature, Premier University, Chittagong. Bangladesh

A B S T R A C T

Indigenous communities in Bangladesh face significant challenges in acquiring English as a third language, often due to socio-economic constraints, limited educational resources, and linguistic barriers. Traditional teaching methods and curricula frequently fail to address the unique needs of these multilingual learners. This research explores the potential of technology to bridge the gap and enhance English language acquisition among indigenous students. Through a review of existing literature and analysis of case studies, the study investigates how digital tools, such as mobile apps, e-learning platforms, and multimedia resources can provide personalized, flexible, and culturally relevant learning experiences. It also examines barriers to technology adoption, including infrastructure limitations, digital literacy gaps, and socio-cultural factors. The findings highlight the transformative role of technology in improving access to quality English education, while also identifying areas where policy support and teacher training are essential. This research offers recommendations for integrating technology into indigenous education systems, emphasizing the need for culturally sensitive and inclusive approaches. Ultimately, this study underscores the importance of leveraging digital innovations to create equitable learning opportunities for marginalized communities in Bangladesh.

Keywords: Indigenous education, English language acquisition, Multilingual learning, Cultural barriers, Educational equit

INTRODUCTION

Bangladesh is home to a diverse population, including over 50 indigenous communities, each with unique languages and cultural identities. While the majority population primarily speaks Bangla, indigenous groups often communicate in their native languages, making them multilingual by necessity. For many indigenous learners, English represents a third language that is essential for academic advancement, economic opportunities, and global communication. However, acquiring English poses significant challenges for these learners due to factors such as limited access to quality education, linguistic barriers, and socio-economic constraints. Despite efforts to promote multilingual education, indigenous learners often remain at a disadvantage in the English learning process. Traditional teaching methods, often rooted in a one-size-fits-all approach, fail to address the unique needs of students from diverse linguistic backgrounds. Additionally, resource shortages and a lack of culturally relevant curricula further exacerbate the learning gap. In this context, technology emerges as a potential game-changer. Digital tools, such as mobile apps, online learning platforms, and multimedia resources, offer innovative ways to overcome barriers and create a more inclusive learning environment. Technology not only provides access to a vast array of language learning materials but also allows for personalized, self-paced learning experiences tailored to individual needs. This research aims to explore the role of technology in supporting English language acquisition among indigenous learners in Bangladesh. It examines how technological solutions can bridge the gap between limited resources and the growing need for English proficiency. By identifying the opportunities and challenges associated with integrating technology into the education system, this study seeks to contribute to a more equitable and effective approach to language learning for marginalized communities.

LITERATURE REVIEW

The Context of Indigenous Education in Bangladesh

Bangladesh is home to over 50 indigenous communities, each with distinct languages, traditions, and educational needs. Indigenous students often encounter significant barriers in mainstream education systems, which are primarily designed for Bangla-speaking learners. Ahmed and Hasan (2016) highlight the lack of multilingual support, which places indigenous learners at a disadvantage in acquiring both Bangla and English. This marginalization is further exacerbated by inadequate educational infrastructure and culturally irrelevant curricula, limiting their opportunities for academic and professional advancement.

Challenges in English Language Acquisition for Indigenous Learners

Learning English as a third language is a complex process for indigenous students in Bangladesh. Roy et al. (2018) identify several key challenges, including limited access to qualified teachers, a scarcity of appropriate learning materials, and pedagogical approaches that fail to consider the linguistic diversity of students. Traditional rote-learning methods dominate classrooms, often leading to disengagement and poor retention of language skills.

Moreover, psychological factors significantly influence language learning outcomes. Kobra (2024) emphasizes the role of motivation, confidence, and anxiety in English language acquisition. Indigenous students frequently experience language anxiety due to unfamiliarity with English and fear of making mistakes, which hinders their ability to learn effectively. Kobra's work also suggests that fostering intrinsic motivation through culturally relevant and engaging teaching methods can significantly improve learning outcomes.

The Role of Technology in Language Learning

Globally, technology has emerged as a transformative tool for language education. Warschauer (2017) asserts that digital platforms provide learners with interactive, multimodal, and personalized resources that enhance language acquisition. Mobile applications like Duolingo and Khan Academy facilitate self-paced learning, while platforms such as Zoom and Google Meet enable real-time communication practice.

In the context of Bangladesh, technology holds the potential to bridge gaps in access to quality education for indigenous learners. Studies show that culturally relevant digital tools, such as apps incorporating local languages and traditions, can engage students more effectively than generic resources. For instance, interactive storytelling apps and gamified learning platforms have been successfully used in similar multilingual contexts, such as in India and the Philippines, to teach English to minority communities.

Barriers to Technology Adoption in Indigenous Communities

Despite its potential, technology integration faces significant barriers in indigenous communities. Infrastructure issues, such as limited internet connectivity, lack of electricity, and insufficient access to devices, are prevalent in rural areas. Digital literacy is another critical challenge; many indigenous students and teachers lack the skills needed to effectively use digital tools for education.

Socio-cultural factors further complicate the adoption of technology. Resistance to change, concerns about cultural erosion, and the prioritization of survival-oriented skills over education often hinder the integration of digital learning tools. Kobra (2024) underscores the importance of addressing psychological barriers, such as anxiety related to using unfamiliar technology, to ensure the success of technological interventions.

Addressing Psychological Dimensions of Learning

Incorporating insights from psychology into technological interventions is critical to their success. Kobra (2024) highlights strategies such as anxiety reduction techniques, mindfulness exercises, and confidence-building activities that can improve learners' emotional well-being and create a supportive environment for language acquisition. For example, gamified learning apps can reduce anxiety by making language practice enjoyable and low-stakes, while adaptive technologies can tailor content to individual proficiency levels, boosting confidence and motivation.

Recommendations for Integrating Technology in Indigenous Language Education

To harness the potential of technology for indigenous learners, a multifaceted approach is required. This includes:

Infrastructure Development: Ensuring reliable internet access, electricity, and affordable digital devices in indigenous regions.

Culturally Relevant Content: Developing digital resources that incorporate indigenous languages, traditions, and contexts to engage students effectively.

Teacher Training: Equipping educators with the skills to integrate technology into their teaching and foster digital literacy among students.

Psychological Support: Incorporating strategies to reduce anxiety and build motivation into digital learning platforms, ensuring a supportive learning environment.

Interdisciplinary collaboration between educators, technologists, and psychologists can lead to holistic solutions that address both technological and psychological dimensions of language learning. By prioritizing these strategies, technology can become a powerful tool to bridge the educational gap for indigenous learners in Bangladesh**..**

METHODOLOGY

Research Design

This study employed a qualitative exploratory research design to examine the challenges and strategies used by indigenous learners in acquiring English as their third language. A qualitative approach was deemed appropriate as it allowed for an in-depth understanding of the complex, personal experiences of indigenous learners, particularly in terms of their educational journey and language acquisition challenges. By focusing on narrative data, the study captured the rich, lived experiences of participants within their specific socio-cultural and educational contexts. This method enabled the researcher to explore factors such as cultural influences, socio-economic barriers, psychological challenges, and systemic educational shortcomings that impacted the language learning process, beyond quantitative measures.

Study Area and Population

The study focused on indigenous communities in Bangladesh, specifically the Chakma, Marma, Tripura, Manipuri, and Garo groups. These communities reside in the Chittagong Hill Tracts and other marginalized rural regions, often facing significant barriers in accessing quality education. The selection of these communities was deliberate, ensuring a comprehensive examination of both common and distinct barriers to English acquisition among different indigenous groups. By focusing on these five communities, the study addressed the varying educational and linguistic challenges that indigenous learners faced, influenced by geographical isolation, cultural diversity, and a predominantly Bangla-centric national education system.

Sample Size and Participant Selection

A purposive sampling technique was employed to select a sample of 15 participants from the indigenous communities. This sample size ensured a balanced representation of different perspectives while maintaining depth in data collection. The participants were selected based on their roles and experiences, ensuring that each group offered unique insights into the study's aims:

1. 10 Indigenous Students

These students, aged 18 to 25 years, were enrolled in schools catering to indigenous communities and were learning English as their third language (after their native languages and Bangla). They were selected based on their direct experience with English language learning, offering valuable perspectives on the challenges they faced in acquiring a third language within a socio-cultural context that was not supportive of multilingual education. These students represented a variety of educational backgrounds and proficiency levels, ensuring a range of experiences in the language learning process.

2. 5 Educators

These included teachers from both indigenous schools and mainstream schools with experience in teaching English to indigenous learners. They ranged from early-career teachers to seasoned educators. Their insights were critical for understanding the pedagogical approaches used, the challenges they faced in addressing the diverse needs of indigenous learners, and their use of technological tools or innovative strategies in teaching English.

3. 5 Community Leaders

Community leaders, including elders and activists, were selected to provide socio-cultural insights into the role of language and education in indigenous communities. They had deep knowledge of local educational practices, socio-economic realities, and cultural factors that influenced language acquisition and attitudes toward education. Their perspectives contributed to understanding how indigenous learners' educational experiences were shaped by community values, local customs, and resources available to them.

Data Collection Methods

To capture the complexity of the challenges faced by indigenous learners, multiple data collection methods were employed:

1. Semi-Structured Interviews

Participants: Indigenous students, educators, and community leaders.

Purpose: Semi-structured interviews allowed for in-depth exploration of individual experiences, with some flexibility for participants to discuss issues significant to them. This method provided rich, personal narratives and ensured that the interviews captured the diversity of experiences and perspectives among participants.

Sample Questions:

For students: *What motivated you to learn English? What specific challenges did you encounter in learning English? Have you used any technology-based tools to assist in your learning? How did you feel about the role of your native language in learning English?*

For educators: *What strategies did you use in teaching English to indigenous learners? How did you address the varying proficiency levels among students? What resources (e.g., technology, materials) did you use in your classroom to support English language learning?*

For community leaders: *How did the community view education and language learning, particularly English? What local resources or strategies were implemented to improve English education for indigenous learners? How did cultural values and traditions influence educational practices?*

2. Classroom Observations

Purpose: Observations were conducted in indigenous schools to assess the teaching methods, resources, and student engagement in English language learning. These provided insight into the real-time dynamics between teachers and students and revealed how English language teaching was carried out in practice.

Focus Areas:

The use of technology in the classroom (e.g., digital tools, multimedia, apps).

Teacher-student interaction, specifically during English lessons.

Resource availability: Identifying teaching materials, digital tools, and other resources used for English language instruction.

Student engagement: Observing student participation, language use, and motivation during English lessons, particularly in terms of how learners interacted with the language and the learning environment.

3. Focus Group Discussions

Participants: A subgroup of indigenous students and educators (5–6 participants in each group).

Purpose: Focus group discussions facilitated a collaborative exploration of the common challenges and strategies identified by the students and teachers. This method encouraged participants to reflect on shared experiences, leading to a deeper understanding of collective perspectives.

Focus Areas:

The impact of technology on English learning, including perceptions of its effectiveness and barriers to its use.

Strategies for overcoming language barriers and improving engagement in English lessons.

Community involvement: Exploring how the community supported and enhanced English language education.

Data Analysis

The data collected were analyzed using thematic analysis, a method that allowed for the identification of recurring patterns or themes within qualitative data. The analysis followed these steps:

1. Data Familiarization: All interview and focus group recordings were transcribed, field notes reviewed, and observation data revisited to immerse in the content.

2. Theme Development: Similar codes were grouped into broader themes. For example, themes included "Technological Barriers," "Cultural Influences on Language Learning," "Motivational Factors," and "Pedagogical Approaches."

3. Interpretation: The themes were interpreted to draw connections between the various factors influencing English language acquisition. Findings were discussed in relation to existing literature and the research objectives.

Ethical Considerations

This study adhered to strict ethical guidelines to ensure the protection of participants' rights and privacy. Key ethical considerations included:

Informed Consent: All participants were fully informed about the purpose of the study, the voluntary nature of their participation, and their right to withdraw at any time. Written consent was obtained from each participant.

Confidentiality: Participants' identities and responses were kept confidential. Pseudonyms were used in all reports and publications.

Cultural Sensitivity: The research process was conducted in a manner that respected the cultural norms and traditions of indigenous communities. The researcher remained mindful of power dynamics, ensuring that participants felt comfortable sharing their perspectives without fear of judgment or repercussions.

FINDINGS AND RESULTS

This study provides a comprehensive overview of the challenges and opportunities faced by indigenous learners in Bangladesh as they acquire English as a third language. The findings, derived from semi-structured interviews, classroom observations, and focus group discussions, reveal both systemic barriers and potential strategies for improvement.

1. Linguistic and Cultural Barriers

Indigenous learners face difficulties in learning English due to significant linguistic and cultural gaps. The stark differences between their native languages, Bangla, and English hinder their ability to grasp grammar, pronunciation, and vocabulary effectively. The lack of culturally relevant teaching materials further exacerbates this issue, creating a disconnect between the learners and the curriculum.

2. Limited Information and Resources

Learners reported insufficient access to foundational and supplementary learning materials. Outdated textbooks and a lack of multimedia resources contribute to their struggles. Modern materials that integrate cultural contexts and offer a broader range of learning strategies are either unavailable or inaccessible.

3. Missing Illustrations and Visual Aids

Textbooks and teaching materials often lack culturally relevant illustrations and visual aids. This absence makes it harder for students to relate to or comprehend complex topics, reducing their engagement and interest in learning English.

4. Lack of Skilled Mentors

There is a significant shortage of qualified teachers equipped to address the unique needs of indigenous learners. Many educators lack specialized training in teaching English as a third language or in incorporating culturally sensitive and interactive teaching methods. This gap limits students' ability to learn effectively and achieve fluency.

5. Insufficient Use of Project or Slide-Based Learning

Interactive teaching methods, such as project-based learning or slide presentations, are rarely used in indigenous schools. Traditional rote memorization dominates classroom practices, leaving students disengaged. Learners expressed a strong preference for dynamic teaching tools, such as multimedia presentations and group projects, which could make lessons more interactive and engaging.

6. Limited Access to Advanced-Level Books

Students often struggle to transition from basic literacy to more advanced levels of English learning due to the unavailability of higher-level books. Without exposure to advanced resources, students are unable to develop the proficiency needed for academic or professional success.

7. Psychological and Motivational Challenges

Indigenous learners frequently experience anxiety, low confidence, and a fear of making mistakes, which inhibit active participation in learning activities. The psychological burden is compounded by systemic inequities, such as marginalization and lack of cultural representation in the curriculum.

8. Lack of Collaborative Learning Opportunities

Group discussions, peer learning, and interactive classroom activities are underutilized in indigenous schools. Students highlighted the need for more collaborative learning opportunities to practice English in a supportive and engaging environment. These activities can help reduce anxiety and build confidence in using the language.

9. Fixed and Inflexible Schedules

Rigid classroom schedules fail to accommodate the unique responsibilities of indigenous learners, such as household or community duties. This lack of flexibility often leads to inconsistent attendance and disengagement from language learning.

10. Resource and Technology Gaps

The lack of access to modern technological tools and infrastructure, such as computers, internet connectivity, and multimedia devices, emerged as a critical barrier. Schools in indigenous areas often lack basic amenities, making it difficult to implement innovative teaching methods or provide learners with self-directed learning opportunities through digital tools.

DISCUSSION

The findings of this study highlight the multifaceted challenges faced by indigenous learners in Bangladesh as they acquire English as a third language, along with potential strategies to address these issues. This discussion integrates the findings with existing literature, emphasizing the implications for policy, pedagogy, and future research.

1. Linguistic and Cultural Barriers

The study revealed that linguistic and cultural differences significantly impact indigenous learners' ability to acquire English. This aligns with Smith and Dixon (2019), who emphasized the role of cultural disconnect in impeding language acquisition. The absence of culturally relevant materials, as highlighted in this study, not only reduces learner engagement but also perpetuates a sense of alienation. To mitigate this, incorporating indigenous contexts into the curriculum could bridge the gap between students' native languages, Bangla, and English, fostering a more inclusive learning environment.

2. Limited Resources and Technological Gaps

Resource inadequacies, such as outdated textbooks and a lack of advanced-level books, were found to hinder learners' progress. This finding corresponds with Yadav and Rahman (2021), who noted that marginalized communities often face unequal access to educational resources. The lack of technological infrastructure further exacerbates these challenges, limiting opportunities for self-directed learning and innovative teaching methods. Implementing offline digital tools and improving school infrastructure could address this disparity, enabling learners to access modern, engaging, and culturally sensitive materials.

3. Psychological and Motivational Challenges

The study highlighted that anxiety, low confidence, and fear of judgment are significant barriers for indigenous learners. This finding resonates with Kobra (2024), who stressed the importance of fostering psychological well-being in educational settings. Safe, supportive classroom environments and peer mentoring programs could help reduce anxiety and build learners' confidence. Additionally, teacher training programs should include strategies to address these psychological barriers, promoting a holistic approach to language learning.

4. Lack of Skilled Mentors and Interactive Teaching Methods

The shortage of qualified teachers with expertise in multilingual and culturally sensitive pedagogy emerged as a critical barrier. This aligns with UNESCO's (2017) findings on the global shortage of skilled educators in marginalized communities. Moreover, the limited use of interactive teaching methods, such as project-based learning and group discussions, restricts learner engagement. Training teachers in innovative, student-centered teaching practices and equipping them with modern tools could significantly enhance classroom dynamics and improve learning outcomes.

5. Fixed Schedules and Inflexibility

The study found that rigid school schedules fail to accommodate the unique circumstances of indigenous learners, such as household responsibilities and cultural practices. This echoes Rahman and Chowdhury (2020), who highlighted the need for flexible learning environments to support marginalized communities. Introducing modular or flexible schedules could help address this issue, ensuring consistent engagement in learning activities.

6. Importance of Collaborative Learning

Collaborative learning opportunities, such as group discussions and peer-to-peer activities, were identified as underutilized but highly desired by learners. This finding supports the view of Kobra (2024) that collaboration fosters confidence and reduces anxiety in language learning. Schools should create more opportunities for students to interact in English through group projects, role-playing activities, and peer mentoring systems, making the learning process more dynamic and engaging.

7. Policy Implications

The findings have significant implications for educational policies in Bangladesh. Policies that emphasize multilingual education, resource allocation for marginalized communities, and teacher training in culturally sensitive methodologies are crucial. Collaboration with NGOs, the private sector, and international organizations can further support the development and implementation of these policies.

CONCLUSION

This study underscores the intricate challenges faced by indigenous learners in Bangladesh as they endeavor to acquire English as a third language. Linguistic and cultural barriers, resource constraints, psychological hurdles, and inflexible educational systems collectively impede their progress. However, these challenges are not insurmountable.

The findings highlight the critical need for culturally sensitive teaching methodologies, equitable resource allocation, and innovative strategies to create an inclusive learning environment. Integrating technology, fostering collaborative learning, and training educators in multilingual pedagogy can bridge existing gaps and empower indigenous learners to succeed in acquiring English proficiency.

Moreover, flexible learning schedules and policies that prioritize the unique needs of indigenous communities are essential for ensuring equitable access to education. Collaborative efforts between policymakers, educators, and community stakeholders are crucial for driving these changes.

Ultimately, addressing these challenges is not just about improving language acquisition; it is about promoting social equity, preserving indigenous identities, and empowering communities to thrive in an increasingly interconnected world. This study provides a foundation for actionable interventions and paves the way for further research to support indigenous learners in their educational journey.

RECOMMENDATIONS

Based on the findings and discussion, the following recommendations aim to address the challenges faced by indigenous learners in acquiring English as a third language in Bangladesh. These suggestions are geared toward policymakers, educators and community stakeholders to ensure equitable and effective education for indigenous communities.

1. Develop Culturally Relevant Educational Materials

Design textbooks and teaching resources that incorporate indigenous cultural contexts, traditions, and languages.

Use illustrations, examples, and stories from indigenous communities to make learning relatable and engaging.

2. Enhance Teacher Training Programs

Train teachers in multilingual and culturally sensitive pedagogies to address the unique needs of indigenous learners.

Provide professional development programs focused on interactive teaching methods, such as project-based learning and collaborative activities.

Equip educators with skills to manage and reduce psychological barriers like anxiety and low confidence among students.

3. Increase Access to Technology and Digital Tools

Invest in infrastructure to provide internet connectivity, computers, and multimedia tools in schools located in indigenous regions.

Introduce offline digital tools and applications that support English language learning and are accessible in low-resource settings.

Develop e-learning modules tailored for indigenous learners, including interactive lessons, quizzes, and games.

4. Promote Flexible Learning Opportunities

Implement modular schedules or after-school programs to accommodate learners with household or community responsibilities.

Offer alternative learning pathways, such as evening classes or weekend workshops, to increase accessibility for all students.

5. Foster Collaborative Learning Environments

Encourage group discussions, peer-to-peer learning, and role-playing activities to build students' confidence and language proficiency.

Create mentorship programs where older or more advanced students can guide and support younger learners.

6. Provide Access to Advanced Learning Resources

Supply schools with a range of English language books, from foundational to advanced levels, to support learners at different stages.

Partner with NGOs and international organizations to provide free or subsidized learning materials for underserved schools.

7. Address Psychological Barriers

Introduce programs that promote student well-being, such as counseling services and workshops on confidence building.

Train teachers to create supportive classroom environments where students feel safe to express themselves without fear of judgment.

8. Engage Families and Communities

Conduct awareness programs for parents and community leaders to emphasize the importance of English language education alongside preserving indigenous languages and cultures.

Involve community members in the development of curricula and teaching strategies to ensure cultural alignment and acceptance.

9. Strengthen Policy Support

Develop and implement policies that prioritize multilingual education and equitable resource distribution in indigenous regions.

Allocate specific budgetary resources for teacher training, technology, and culturally appropriate educational materials.

Collaborate with NGOs, private sectors, and international agencies to support these initiatives sustainably.

10. Monitor and Evaluate Progress

Establish mechanisms for regular monitoring and evaluation of English language programs in indigenous schools.

Use feedback from students, teachers, and communities to refine strategies and address emerging challenges.

References

Smith, J. P., & Dixon, R. A. (2019). Indigenous language preservation and the challenges of learning a third language. Journal of Multilingual Education, 12(3), 45–60.

Kobra, K. (2024). Unraveling the complex web of student anxiety: Strategies to foster confidence, motivation, and well-being in learning. International Journal of Research Publications and Reviews, 5(6), 2008–2012. https://ijrpr.com/uploads/V5ISSUE6/IJRPR29891.pdf

United Nations Educational, Scientific and Cultural Organization (UNESCO). (2017). Indigenous languages: Preserving linguistic diversity and promoting multilingual education. Paris, France: UNESCO Publishing.

Yadav, P., & Rahman, A. (2021). Technology in education: Bridging gaps for marginalized communities. Asian Journal of Education and Development, 9(4), 120–136.

Kobra, K. (2024). Exploring the interplay between English language teaching and psychology: A comprehensive review. International Journal of Research Publications and Reviews, 5(6), 1888–1892. https://ijrpr.com/uploads/V5ISSUE6/IJRPR29875.pdf

Rahman, M., & Chowdhury, S. (2020). Multilingual education policies in Bangladesh: Opportunities and challenges. International Journal of Education Policy and Leadership, 15(2), 75–90.

World Bank. (2022). Education for all: Addressing disparities in Bangladesh's indigenous communities. Washington, D.C.: World Bank Publications