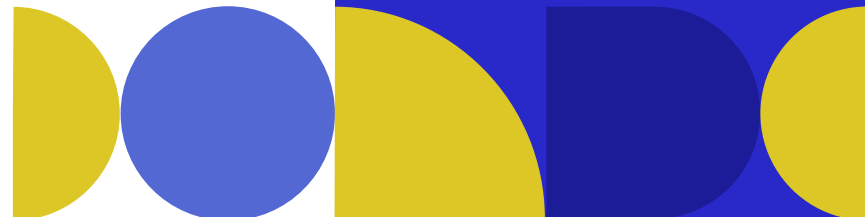


# From Traditional to Technological: How AI is Redefining Language Learning Practices

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# Introduction to AI in Language Education

## AI Revolution in Language Learning:

The integration of AI into language education has introduced personalized learning, adaptive systems, and real-time feedback mechanisms.



# Objectives of the Study

## Exploring AI's Impact

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Investigate how AI tools like Duolingo, Babbel, and Xeropan shape language education across diverse global settings.

## Comparing Global Case Studies

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Examine case studies from U.S. public schools, rural schools in India, and workplace training programs in Europe to assess real-world effectiveness.





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## Traditional Language Learning Challenges

- **Lack of Personalization:** Traditional methods treat all students as homogeneous, neglecting individual needs.
- **Over-reliance on Rote Learning:** Memorization over practical application limits language proficiency.
- **Exclusion of Multilingual Learners:** Traditional methods often fail to engage multicultural learners effectively.

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## AI as a Solution

- **61% Adoption in India:** AI tools like Duolingo, Babbel, and Xeropan are now incorporated in 61% of Indian classrooms (TeamLease EdTech, 2024).
- **AI Advantages:**
  - Personalized content delivery.
  - Real-time feedback that increases learner engagement.
  - Scalability, especially in underserved regions.

# Theoretical Framework – Educational Technology Theories

- **Personalized Learning Theory**

- **Definition:** AI adapts lessons to the learner's pace and proficiency.
- **Example:** Duolingo's AI-driven system tailors exercises and adjusts based on user progress.
- **Impact:** 50% increase in learner retention (Duolingo Report, 2023).

- **Adaptive Learning Systems**

- **Definition:** AI tools adjust content based on real-time learner data.
- **Example:** Xeropan and Mondly adjust difficulty based on learner behavior.
- **Impact:** Improved retention and faster learning curves (Xeropan Case Study, 2024).



# Methodology

## Research Design

- **Qualitative Review and Case Studies:** Data from teacher surveys, student performance metrics, and case reports.
- **Primary Settings:**
  - **U.S. Public Schools:** Duolingo and Memrise.
  - **Rural India:** Xeropan in underserved schools.
  - **European Workplaces:** Memrise and Babbel in corporate training.

## Data Collection:

- Teacher surveys to gauge AI integration effectiveness.
- Student performance data to analyze language proficiency improvements.
- Case reports for qualitative feedback.



# AI's Transformative Role in Language Learning

## Personalized Learning Experiences

- **Key AI Tools:** Duolingo, Babbel, Memrise.
- **Impact:** Significant increase in retention and engagement due to personalized paths.
  - Duolingo: 50% increase in learner retention (Duolingo Report, 2023).
  - Memrise: 40% increase in language retention (Memrise Study, 2023).

## Interactive and Immersive Learning

- **AI-Driven Simulations:** Real-world scenarios for conversational practice.
- **Example:** Mondly integrates augmented reality (AR) for pronunciation feedback.

## Accessibility & Equity

- AI tools provide 24/7 learning support in underserved regions.
- **Impact:** 30% increase in access to language education in rural India (UNESCO Report, 2024).





# AI Tools Overview

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## Duolingo

- **Key Features:** Gamified lessons, personalized content delivery, AI-driven chat conversations.
- **Impact:** 50% increase in retention and engagement through personalized paths (Duolingo Report, 2023).

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## Babbel

- **Key Features:** Real-life conversation scenarios, adaptive learning.
- **Impact:** 25% improvement in language proficiency due to customized lessons (Babbel Study, 2023).

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## Xeropan

- **Key Features:** Gamified learning with AI chatbots and speakbots.
- **Impact:** 30% improvement in speaking skills through interactive practice.



# Challenges and Considerations

## Technological Dependency

- **Risk:** Over-reliance on AI may impede critical thinking and problem-solving.
- **Example:** Duolingo's quick feedback system may limit deeper understanding of language mechanics.

## Data Privacy and Ethical Concerns

- **Issue:** AI tools collect large amounts of personal data, raising privacy concerns.
- **Example:** Speech data collection by Duolingo, Babbel, and Xeropan for AI feedback.

## Bias in AI Algorithms

- **Risk:** Non-diverse training datasets can perpetuate cultural or linguistic biases.
- **Example:** AI language tools must reflect diverse cultural contexts to avoid stereotypes.



## Implications for Policy and Practice

- **Policy Recommendations**

- **Equitable Access:** Ensure AI tools are available in both urban and rural areas.
- **Data Privacy:** Enforce strong data privacy regulations for AI platforms used in schools.

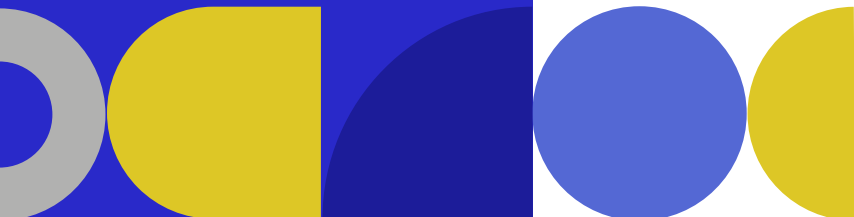
- **Best Practices**

- **Teacher Training:** Upskill educators to integrate AI tools effectively in classrooms.
- **Complementary Integration:** AI should enhance, not replace, traditional teaching methods.



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# AI Tools in *Real-World Case Studies*



## Findings and Discussion

- **Positive Impacts**

**Student Engagement:** AI tools like Duolingo and Babbel have shown positive results in engagement and proficiency.

- **Case Study: U.S. Public Schools:** Duolingo led to a 25% increase in student engagement and 20% improvement in language proficiency (U.S. Department of Education, 2023).

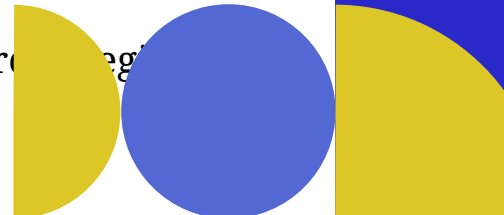
- **Challenges**

- **Technological Barriers:** Poor internet access in rural areas limits AI tool effectiveness.
- **Data Privacy:** AI tools' collection of sensitive data requires robust privacy regulations.

- **Comparative Insights**

- **U.S. and Europe:** AI integration is more successful in well-resourced regions.

**Underserved Areas:** Rural regions face infrastructure challenges.



## Case Study: Duolingo in U.S. Public Schools

- **Setting:** Schools in urban and rural areas across the U.S.
- **Impact:** 25% increase in student engagement, 20% improvement in proficiency (Duolingo Survey, 2023).



## Case Study: Xeropan in Rural India

- **Setting:** Rural schools with limited resources.
- **Impact:** 30% increase in access to education in underserved regions (UNESCO Report, 2024).



Xeropan



## Case Study: Memrise in European Workplaces

- **Setting:** Corporate training programs in Europe.
- **Impact:** 40% improvement in language retention (Memrise Study, 2023).





# Conclusion and Call to Action

## Summary of Key Findings

- AI tools like Duolingo, Babbel, and Xeropan provide personalized learning, enhance engagement, and improve language proficiency.
- Challenges remain with technological dependency, data privacy, and equity in access.

## Call to Action

- **For Educators:** Integrate AI tools to enhance student learning while maintaining critical thinking practices.

**For Policymakers:** Invest in AI infrastructure for underserved regions and establish strong data privacy regulations.

# Resources

- Chomsky, N. (2006). *Language and Mind*. Cambridge University Press.
- Baker, L. M. (2022). *Artificial Intelligence and Educational Disruption*. Journal of Educational Technology.
- Duolingo Report (2023), Memrise Study (2023), Xeropan Case Study (2024).
- TeamLease EdTech (2024), Babbel Annual Review (2023), TalkPal Impact Study (2024).



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# Thank You!