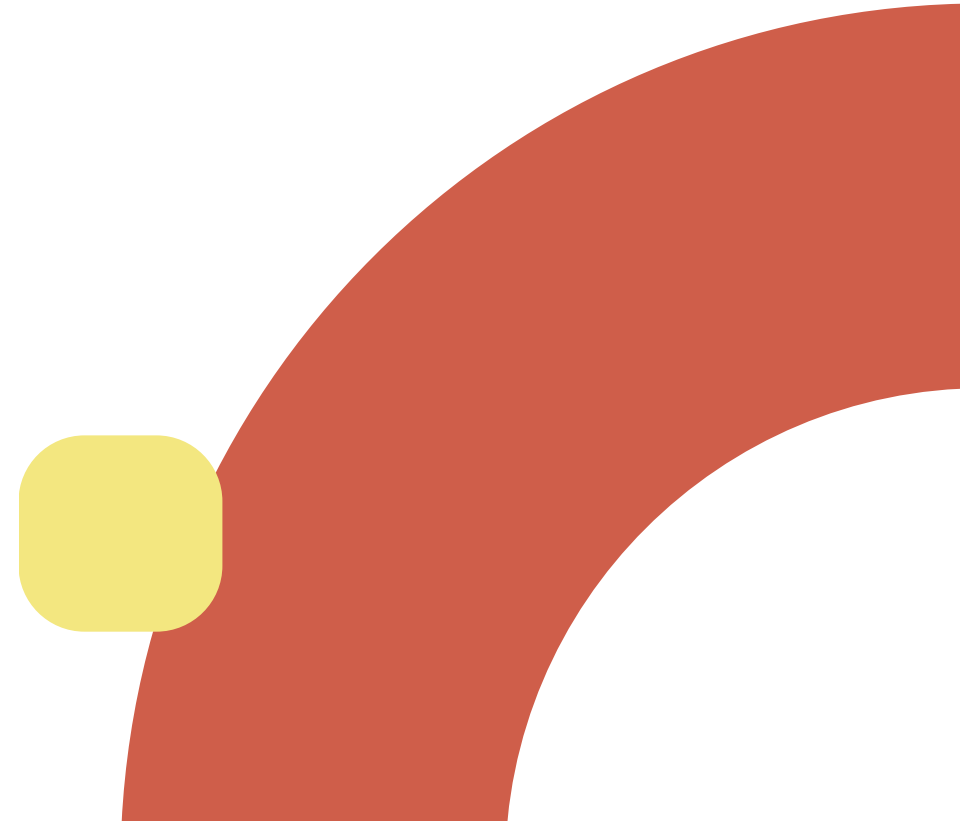




SOLVING THE READING COMPREHENSION AND CRITICAL THINKING STRUGGLE IN PANAMA AND ACROSS THE GLOBE



ManGo Read App



PROBLEM

Reading Comprehension and Critical Thinking Crisis

According to UNICEF, only about one-third of 10-year-olds worldwide can read and understand a simple written story, leaving approximately 64% unable to meet minimum reading proficiency levels—a figure that has risen from 52% before the pandemic.

In terms of critical thinking, a survey by the Reboot Foundation found that while 94% of respondents believe critical thinking skills are important in today's world, 86% feel these skills are generally lacking in the public.

Additionally, 60% reported not having studied critical thinking in school. These statistics highlight a global educational challenge, emphasizing the need for enhanced teaching strategies to improve reading comprehension and critical thinking skills among students.

Panama faces significant challenges in reading comprehension among its student population. According to the 2018 Programme for International Student Assessment (PISA), only 42% of Panamanian students achieved the reading proficiency levels outlined by the Sustainable Development Goals. This indicates that a majority of students struggle with understanding written texts.

Addressing these challenges requires a collaborative effort from governments, educators, and communities to implement innovative and effective learning strategies.

SOLUTION

Mango Read App

Mango Read is designed to tackle this issue through an interactive, gamified approach that makes reading more engaging, accessible, and effective for children and teenagers.

Key Solutions Provided by Mango Read:

Gamification for Engagement

- Students unlock new book chapters by completing comprehension, critical thinking, and creativity challenges.
- Rewards, progress tracking, and leaderboards motivate continuous learning.

Customized Learning Paths

- Adaptive difficulty levels ensure students receive challenges suited to their skills.
- AI-powered creative writing assistance helps develop storytelling and literacy abilities.

Accessible & Inclusive Features

- Audiobooks & text highlighting support students with dyslexia or ADHD.
- Bilingual content (English & Spanish) expands access to diverse readers.

Integration of Real-World Themes (SDGs)

- Books and activities align with United Nations' Sustainable Development Goals (SDGs) to encourage social awareness.

IMPACT

of Mango Read & How It Will Help

Mango Read is a game-changing solution designed to enhance reading comprehension, critical thinking, and creativity among children and teenagers worldwide. With over 50% of students in low- and middle-income countries struggling to understand a simple text (World Bank, 2021), our mission is to make reading more engaging, accessible, and meaningful through an interactive, gamified approach.

Key Impact Areas:

Improved Reading Comprehension

- Gamified challenges enhance understanding, retention, and interpretation of texts.

Enhanced Critical Thinking

- Real-world issue-based questions and activities aligned with UN Sustainable Development Goals (SDGs) foster deeper analysis and reflection.

Increased Engagement & Motivation

- Rewards, progress tracking, and gamification encourage students to read consistently and stay motivated.

Support for Diverse Learners

- Features like audiobooks, text highlighting, and bilingual content (English & Spanish) ensure inclusivity, especially for students with dyslexia or ADHD.

Bridging the Education Gap

- Complements school curricula by including classic literature and required novels, transforming reading into an interactive and immersive experience.

Mango Read is more than just an app—it's a literacy revolution, empowering young minds to become lifelong readers, critical thinkers, and engaged global citizens.

The Challenges Faced by a Child Without Reading Comprehension and Critical Thinking Skills

A child who struggles with reading comprehension and critical thinking will face significant limitations in both their personal and professional life. These fundamental skills are the foundation for learning, problem-solving, and making informed decisions. Without them, a person's opportunities, independence, and overall quality of life can be.

LIMITED ACADEMIC SUCCESS

- Difficulty understanding textbooks, assignments, and instructions.
- Struggles with subjects that require analysis, such as math, science, and history.
- Higher risk of dropping out of school, limiting future education and career opportunities.

VULNERABILITY TO MISINFORMATION

- Difficulty distinguishing facts from opinions, making them susceptible to manipulation.
- Struggles to analyze news, contracts, or agreements, leading to poor decision-making.
- Increased risk of financial exploitation or falling for scams.

WEAKER COMMUNICATION AND SOCIAL SKILLS

- Struggles to express thoughts clearly and engage in meaningful conversations.
- Difficulty understanding social cues, leading to miscommunication and misunderstandings.
- Limited ability to negotiate, advocate for themselves, or participate in debates.

MENTAL AND EMOTIONAL STRUGGLES

- Frustration, anxiety, or low self-esteem due to learning difficulties.
- Feeling excluded or left behind in academic and social environments.
- Limited ability to reflect on emotions and make informed life choices.

Without reading comprehension and critical thinking, a child's future is severely restricted.

Why Is There a Decline in Reading Comprehension and Critical Thinking Among Children and Youth?

The global decline in reading comprehension and critical thinking among children and young people is a growing concern. Various factors contribute to this issue, many of which have been exacerbated by technological changes, educational gaps, and societal shifts. Below are some of the main reasons behind this decline:



Excessive screen time and social media consumption are reducing children's ability to focus on deep reading. Platforms promote short, fast-paced content, leading to shorter attention spans and lower reading comprehension. Without a strong reading culture at home, books often seem less appealing than digital entertainment. As a result, students struggle with critical thinking, academic performance declines, and literacy skills weaken.

Solutions include setting screen-time limits, using gamified reading apps, and encouraging family reading habits to restore engagement with books.

Quantifying the problem

82% of sixth-grade students did not reach basic reading levels according to the ERCE 2019 report.

REGION	static	source
Global	94% of respondents believe critical thinking skills are important, but 86% feel these skills are generally lacking in the public.	<u>REBOOT FUNDATION</u>
Global	Approximately 64% of 10-year-olds are unable to read and understand a simple written story, up from 52% pre-pandemic.	<u>UNICEF</u>
Panama	in sixth-grade reading, 17.5% of students in Panama reached at least Level III performance in the ERCE 2019 assessment.	<u>ERCE 2019</u>
Panama	Only 42% of students achieved the reading proficiency levels outlined by the Sustainable Development Goals.	<u>PISA 2022</u>
Latin America & Caribbean	Four out of five sixth graders lack basic reading comprehension skills.	<u>WORLD BANK GROUP</u>

What is the Mango Read App? How Can It Solve the Problem?

Mango Read is an innovative educational app that integrates the United Nations Sustainable Development Goals (SDGs) with interactive book reading. Designed for children and young people aged 8 to 18, the app enhances reading comprehension, critical thinking, and creativity through an engaging, gamified learning experience.

Key Features

- **Gamified Learning:** A reward-based system similar to Duolingo that keeps students motivated.
- **Reading Comprehension:** Interactive books and challenges that improve understanding.
- **Creative Writing:** AI-assisted tools to help students develop storytelling and writing skills.
- **Critical Thinking:** Thought-provoking questions and discussions linked to book content.
- **Social Awareness (SDGs):** Books and challenges aligned with real-world issues to inspire action.

How Does Mango Read Address This Challenge?



Gamification to Maintain Engagement

1

Gamification to Maintain Engagement



- Micro-Challenges & Quick Rewards: Instead of long reading sessions, Mango Read uses short, interactive reading challenges that provide instant rewards, keeping students engaged.
- Unlockable Content: Readers unlock new book chapters, quizzes, and interactive elements as they progress, triggering curiosity and motivation.
- Leaderboards & Progress Tracking: Students earn points, badges, and rankings, making reading a competitive and rewarding experience.

2

Adaptive & Personalized Learning

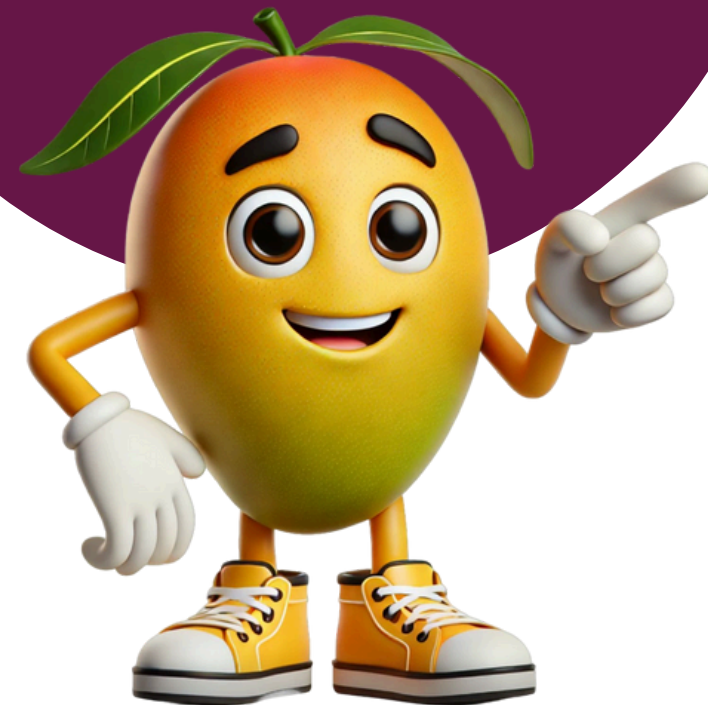


Adaptive & Personalized Learning

- AI-Powered Recommendations: The app analyzes user reading habits and attention patterns, adjusting difficulty levels and offering personalized book suggestions.
- Short-Form & Interactive Content: To align with shorter attention spans, the app integrates quick comprehension quizzes, mini-games, and discussion prompts after short reading sections.
- AI-powered creative writing assistance helps develop storytelling and literacy abilities.

3

Multi-Sensory Engagement



Multi-Sensory Engagement

- Audiobooks & Text Highlighting: Helps students with different learning styles (especially those with dyslexia or ADHD) stay engaged.
- Book Background: Before starting a book, students receive background information on the period, author, and key themes.
- Integrated Dictionary: Instant Word Definitions: Students can click on difficult words to see simple, age-appropriate definitions and examples in context.
- Bilingual Support (English & Spanish): Definitions are available in both languages, helping students expand their vocabulary in a second language.
- Pronunciation Assistance: Audio features help with word pronunciation, benefiting struggling readers and non-native speakers.

Real-World Connection Through the Sustainable Development Goals (SDGs)

4

Real-World Connection
Through the Sustainable
Development Goals (SDGs)



- Books & Activities Aligned with SDGs: Stories and challenges are designed to promote awareness of issues like climate change (SDG 13) and quality education (SDG 4).
- Critical Thinking & Social Impact: Students engage in discussions and reflection activities based on real-world problems, fostering problem-solving skills and global awareness.

What makes ManGO Read **UNIQUE** compared to other reading programs?



Feature	ManGO Read	Duolingo ABC	Epic!	Read Theory
Gamified Reading Experience	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Creative Writing Assistance (AI)	✓ Yes	✗ No	✗ No	✗ No
Integration of Sustainable Development Goals (SDGs)	✓ Yes	✗ No	✗ No	✗ No
Adaptive Learning Paths	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Bilingual Content (English & Spanish)	✓ Yes	✓ Yes	✓ Yes	✗ No
Classic Literature & School-Required Novels	✓ Yes	✗ No	✓ Yes	✓ Yes
Audiobooks & Text Highlighting	✓ Yes	✗ No	✓ Yes	✗ No
Non-Intrusive Advertising Model	✓ Yes	✗ No	✗ No	✗ No
Personalized Feedback & Progress Tracking	✓ Yes	✓ Yes	✓ Yes	✓ Yes

How Parents and Teachers Benefit from Using ManGO Read



Curriculum Integration: Mango Read includes classic literature and school-required books, making it easier for teachers to incorporate digital reading activities into lesson plans.



Performance Tracking: Educators can monitor students' reading progress, comprehension levels, and engagement through detailed analytics.



Interactive Teaching Tools: Teachers can assign customized quizzes, critical thinking discussions, and creative projects based on the books students are reading.



Differentiated Learning: The platform adapts to each student's level, allowing teachers to support struggling readers while challenging advanced ones.



For Teachers: Enhancing Classroom Learning



Insights: Parents receive reports on their child's reading activity, helping them stay informed and involved.



Reading Challenges & Rewards: Family-friendly challenges encourage kids to read at home with incentives like unlocking new book chapters or earning badges.



Shared Activities: Parents can engage in storytelling, discuss real-world lessons (linked to SDGs like Life on Land – SDG 15), and even co-read with their children.



Accessibility Features: With audiobooks, text highlighting, and bilingual content (English & Spanish), Mango Read supports different learning styles, including children with dyslexia or ADHD.



For Parents: Encouraging Reading at Home



REAL-WORLD CONNECTIONS & SDGS INTEGRATION

Books are linked to real-world themes and the **Sustainable Development Goals (SDGs)** to help students understand global issues.
Example: After reading *The Little Prince*, students reflect on **SDG 15** (Life on Land) and write about how they can protect nature.

DAILY & WEEKLY READING STREAKS

Students maintain streaks by reading a set amount daily, reinforcing consistent learning habits.
Reminders & Encouragements:
Notifications help keep students engaged.

ADAPTIVE CHALLENGES & PERSONALIZATION

The app adjusts **difficulty levels** based on student performance, ensuring a personalized learning experience.
Creative Challenges: AI-powered writing prompts help students create their own endings or expand on key themes in books.

UNLOCKABLE READING PROGRESS

Students unlock new chapters by completing **comprehension, critical thinking, and creativity challenges**. This structure encourages active engagement rather than passive reading.

POINTS, REWARDS & ACHIEVEMENTS

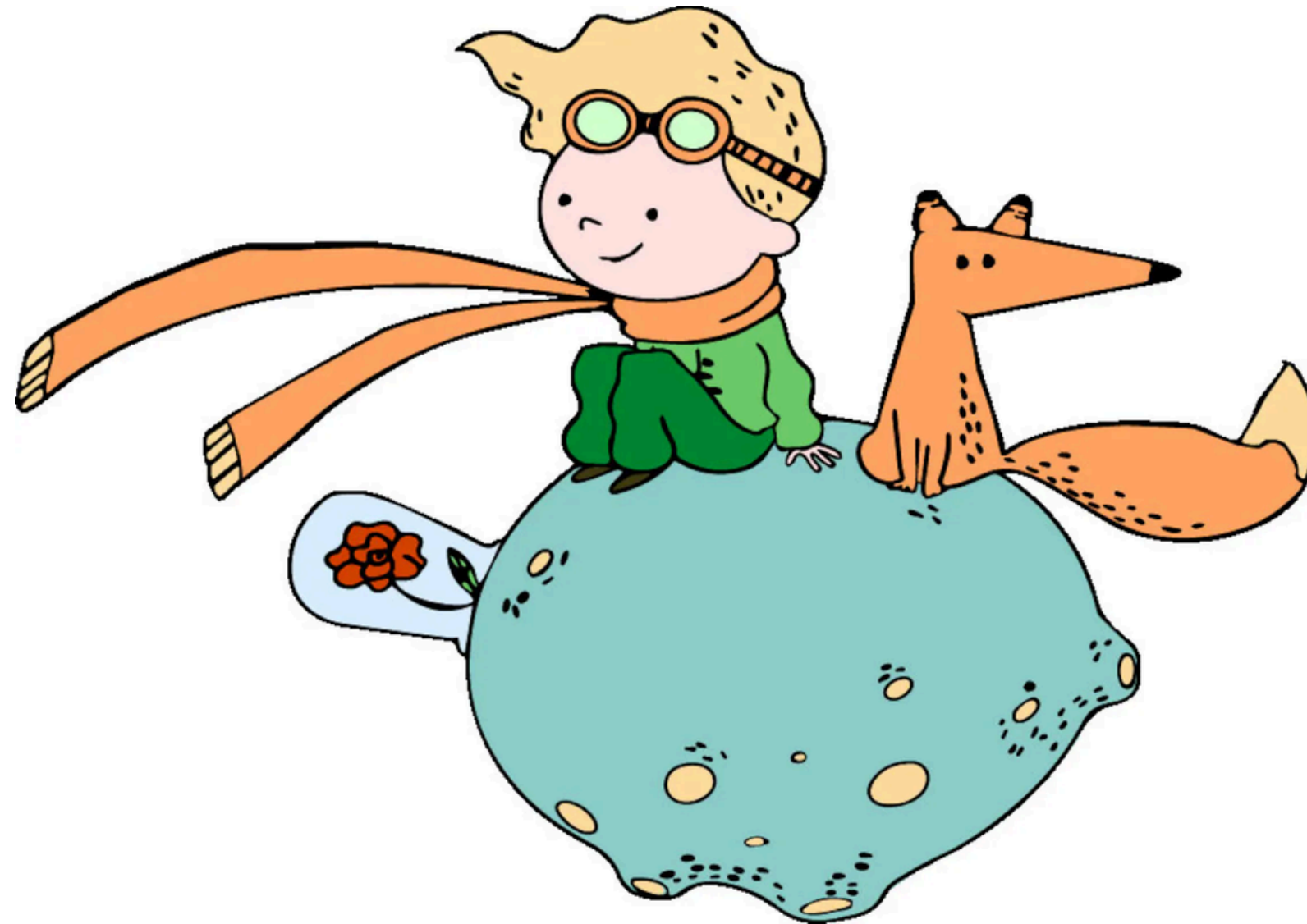
Points: Earned by completing quizzes, interactive matching games, and answering critical thinking questions.

Badges & Achievements: Students unlock special awards for reaching milestones, such as finishing a book, improving reading speed, or demonstrating strong analytical skills.

How Does the Gamification System in Mango Read Work?

How ManGO Read Would It Look?

Using The Little Prince as an Example



GAMIFICATION READING COMPREHENSION

"The Little Prince"

The questions will be given by age and level of the user



Access and Information Retrieval

Example of a Gamified Activity:
Mini-quiz with multiple-choice:

Question: "What drawing does the narrator make at the beginning of the story?"

- A) A boa constrictor that has swallowed an elephant
- B) A hat
- C) A sheep in a box
- D) An airplane

Integration and Interpretation

Matching Game:
Question: "Match the character with its description:"

- The Little Prince → A) A child who lives on an asteroid.
- The Fox → B) An animal that teaches the Little Prince about the importance of bonds.
- The King → C) A ruler who believes he has power over everything.

Reflection and Evaluation

.Gamified Activity:
Open-ended Question:

Question: "Why do you think the Little Prince feels lonely on his planet?"

Critical Thinking Question:
Question:

"The fox tells the Little Prince that what is essential is invisible to the eye.

How would you apply this lesson in your daily life?

Creative Activities with AI

Write alternative endings or your own story:

"Writing Tips" Section:

During the writing process, provide interactive advice on how to improve the plot, characters, narrative style, and other literary aspects.
Narrative Structure Guides.

SDGs

Connecting to the SDGs (Sustainable Development Goals)

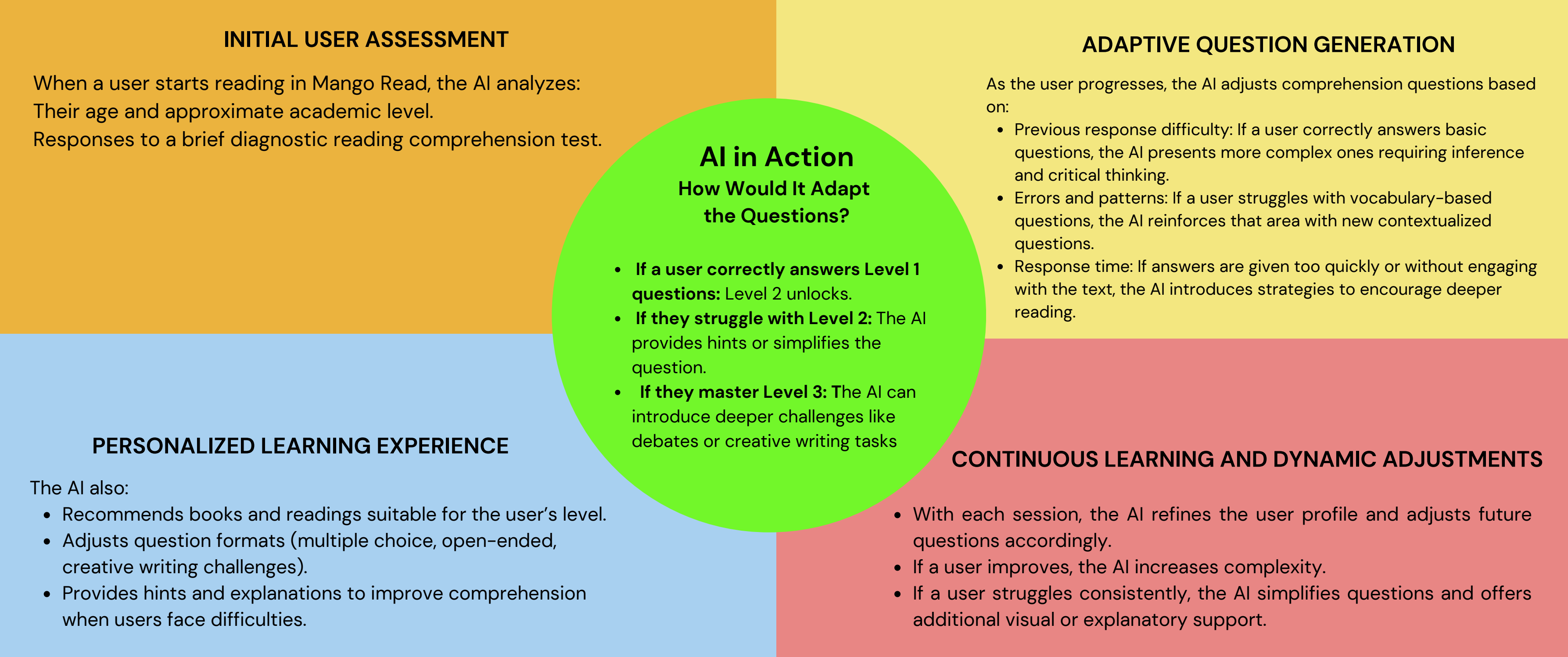
How does the story of the fox and its relationship with the Little Prince relate to the idea of biodiversity and species conservation?

- A. It is not related.
- B. It shows how emotional connections can foster responsibility toward other living beings.
- C. It suggests that all animals should be domesticated.

At the beginning, the SDG 15 logo appears with a brief explanation of its meaning, followed by the question.

HOW MANGO READ'S AI ADAPTS READING AND WRITING QUESTIONS TO USER LEVELS

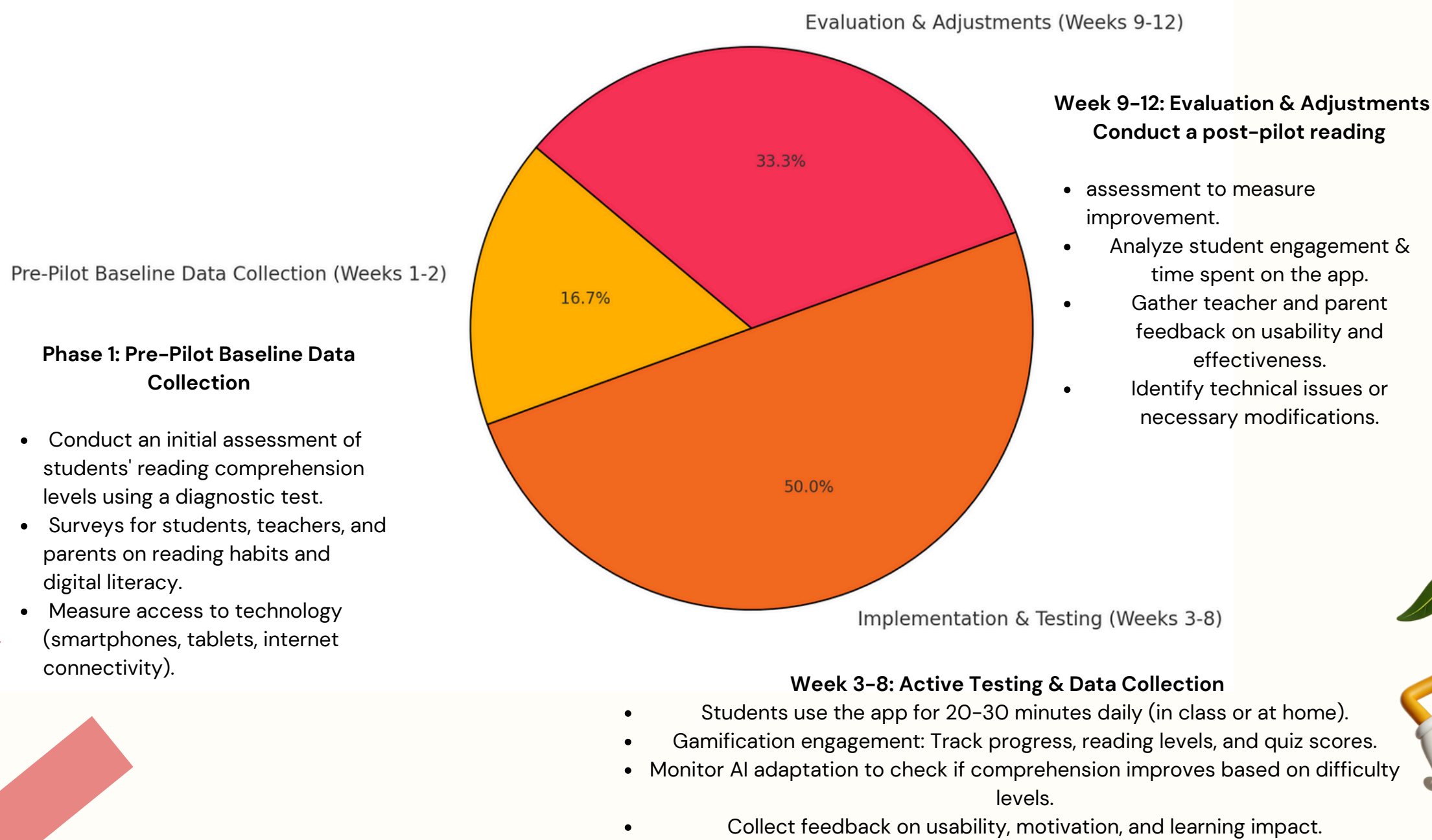
Mango Read's AI operates through an intelligent adaptive system that adjusts reading and writing questions based on the user's proficiency level.



Suggested Pilot Implementation for Mango Read in Panama

To ensure a well-rounded and data-driven pilot for Mango Read, we will test the app across different socioeconomic groups in Panama. This will allow us to evaluate engagement, usability, and impact across diverse learning environments.

Pilot Phases and Duration for Mango Read (Weeks)



Measuring Pilot Success (Key Indicators)

-  **Student Outcomes:**
- ✓ Increase in reading time per week
 - ✓ Improvement in comprehension test scores
 - ✓ More engagement with books (tracked in-app)
-  **Teacher & Parent Feedback:**
- ✓ Do teachers find it helpful as a teaching tool?
 - ✓ Do parents notice improvements in reading habits?
 - ✓ Is the app user-friendly for different age groups?
-  **Technical Performance:**
- ✓ Does the AI effectively adapt to different reading levels?
 - ✓ Are there any accessibility issues in rural areas?



Module Navigation



App features

Mango Read Book Library

- Public Domain Classics & Short stories (Freemium Access)
- Educational Novels & School-Required Books
- Premium Bestsellers & Exclusive Content (Paid Access)
- Audiobook & Multimodal Reading Support

Gamification & Engagement

- Interactive Reading Challenges to boost comprehension and retention.
- Personalized Learning Paths tailored to each student's reading level.
- XP Points & Rewards System to encourage daily reading habits.

Creative Writing & AI Assistance

- Writing Prompts & Challenges to develop storytelling and composition skills.
- AI-Powered Writing Feedback for structure, grammar, and creativity.

SDG Missions & Real-World Impact

- Sustainable Development Goal (SDG) Challenges sponsored by companies and organizations.
- Reading with Purpose: Books and activities aligned with global sustainability and education goals.

Parent & Teacher Dashboard

- Reading Progress Reports to track students' comprehension levels.
- Custom Assignments for teachers to integrate Mango Read into classrooms.



Platform Development & Costs
Development of a web platform & mobile app with tailored features
Marketing, testing, maintenance, and educational consulting.
Total investment required: \$95K

FREEMIUM MODEL

F

- ✓ Open-license books
- ✓ Gamified reading challenges
- ✓ SDG (Sustainable Development Goals) educational content
- ✓ Dictionary and text-highlighting features

PREMIUM MODEL

P

- ✦ Access to licensed popular books, educational novels, and bestsellers
- ✦ AI-powered writing analysis for improved literacy and creativity
- ✦ Exclusive content: author interviews, special books, and promotional offers

PREMIUM PRICE

P

- 💰 Monthly: \$4.99
- 💰 Annual: \$55.00 (discounted rate for yearly commitment)

TARGET CUSTOMERS

T

- 👦 Children & teenagers (ages 8-18)
- 👨👩👦 Parents looking to enhance their kids' literacy
- 🏫 Schools integrating the app into their curriculum
- 💼 Sponsors & social partners supporting educational initiatives

BOOK PARTNERSHIPS

B

- 📖 Collaborations with publishing houses
- 📄 Limited or temporary licenses for exclusive book access
- ✍️ Support for emerging authors to showcase their work

MARKETING STRATEGY

M

- 📱 Social media campaigns (Instagram, TikTok)
- 🤝 Influencer collaborations for engagement
- 🏫 School partnerships to integrate Mango Read as a complementary learning tool

Expanding our solution in Global Markets

Mango Read has the potential to positively impact literacy worldwide, addressing the reading comprehension crisis that affects millions of students. Our platform is designed to be scalable, adaptable, and culturally inclusive, making it easy to implement in different countries.

Here's why Mango Read has strong international expansion potential:

- Multilingual & Culturally Adaptive Content
- Addressing a Global Literacy Crisis
- Alignment with Education Systems
 - Scalable Digital Learning Model
 - SDG-Focused Learning



THE MANGO TEAM



Nicole Cahill

Isabella Cahill

Thank You, World Economic Forum!

On behalf of the Mango Read Team, we sincerely appreciate the opportunity to share our vision for improving global literacy through innovation and gamification. Discussing our project with such a prestigious platform reinforces our commitment to fostering reading comprehension, critical thinking, and social awareness among children and young people worldwide.

We are excited about the future possibilities and look forward to continuing the conversation on how education and technology can drive meaningful change.

Thank you for your support and for championing initiatives that empower the next generation!

— The Mango Read Team 🍌