

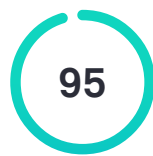
# Untitled

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## General metrics

3,067	395	33	1 min 34 sec	3 min 2 sec
characters	words	sentences	reading time	speaking time

## Score



This text scores better than 95% of all texts checked by Grammarly

## Writing Issues

8	1	7
Issues left	Critical	Advanced

## Writing Issues

1	Clarity	
1	Wordy sentences	<div></div>
2	Correctness	
1	Determiner use (a/an/the/this, etc.)	<div></div>
1	Closing punctuation	<div></div>
1	Delivery	
1	Incomplete sentences	<div></div>

**Unique Words**

Measures vocabulary diversity by calculating the percentage of words used only once in your document

**54%**

unique words

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**Rare Words**

Measures depth of vocabulary by identifying words that are not among the 5,000 most common English words.

**43%**

rare words

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**Word Length**

Measures average word length

**6.4**

characters per word

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**Sentence Length**

Measures average sentence length

**12**

words per sentence

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## Chapter 2: Literature Survey

### Problem Statement

In today's digital age, learning a new language and improving coding skills require engaging and interactive methods. Traditional learning approaches often lack **gamification, real-time feedback, and personalization**, making the process monotonous and ineffective. Furthermore, existing educational platforms **fail to integrate coding with language learning**, missing a crucial opportunity to enhance problem-solving and technical skills simultaneously. There is a **gap in the market** for an **interactive, cross-platform educational app** that seamlessly combines **language learning, coding challenges, quizzes, and gamified experiences**. The lack of such a solution makes it difficult for learners to stay motivated, track progress, and apply knowledge in a practical and engaging way.<sup>1</sup>

### Solution

To address these challenges, we propose the development of **Language Creeper**, an innovative **cross-platform educational application** that enhances language learning through **games, quizzes, flashcards, and coding exercises**. The app integrates **real-time database synchronization, AI-driven learning paths, and gamification** to make the learning experience **engaging, effective, and personalized**.

Key features of **Language Creeper** include:

1. **Gamified Learning Experience:**

- Users progress through different levels by **completing coding challenges, solving quizzes, and unlocking new content.**
- A **character evolution system** rewards users with avatar upgrades and customization based on learning achievements.

2. **Coding + Language Learning Integration:**

- Unique<sup>2</sup> feature where users must **solve coding challenges to progress in language learning games.**
- Helps develop **problem-solving skills** alongside linguistic proficiency.

3. **AI-Driven Personalized Learning Paths:**

- Adapts to the user's learning pace, **suggesting quizzes, flashcards, and coding exercises** based on performance.
- Provides **real-time hints and explanations** using AI-based guidance.

4. **Offline Learning Support:**

- Users can **access quizzes, flashcards, and saved progress offline** using **Firestore caching.**
- Ideal<sup>3</sup> for users in areas with limited internet connectivity.

5. **Secure Authentication & Cloud Sync:**

- Uses **Firebase Authentication** to ensure **secure login and progress tracking** across multiple devices.

6. **Interactive Quizzes & Flashcards:**

- A vast collection of quizzes and AI-driven flashcards help users **reinforce vocabulary, syntax, and grammar** in their chosen language.

7. **Leaderboard & Challenges:**

- A **global leaderboard** encourages friendly competition among users.

- Players can **challenge friends or random opponents** to solve coding problems and quizzes.

#### 8. Multiplatform Support (Android & iOS):

- The **Flutter-based design ensures a smooth and consistent experience** across multiple devices and screen sizes.

By integrating **language learning, coding, and gamification**, **Language Creeper** redefines the way users **engage with new languages and technical skills**. This app **bridges the gap between education and entertainment**, making learning an **exciting and rewarding adventure**<sup>4</sup>

1.	practically and engagingly	Wordy sentences	Clarity
2.	A unique, or The unique	Determiner use (a/an/the/this, etc.)	Correctness
3.	<del>Ideal</del> → It is ideal	Incomplete sentences	Delivery
4.	adventure.	Closing punctuation	Correctness