CUSTOMER ENGAGEMENT STATISTICAL ANALYSIS

ANALYZING STUDENT ENGAGEMENT METRICS FOR 365DATA SCIENCE COMPANY

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INTRODUCTION

- The 365Data Science Company introduced new platform features in 2022 to enhance engagement.

- Features included XP system, rewards, leaderboards, and expanded course library.

- This analysis assesses whether these features increased student engagement.
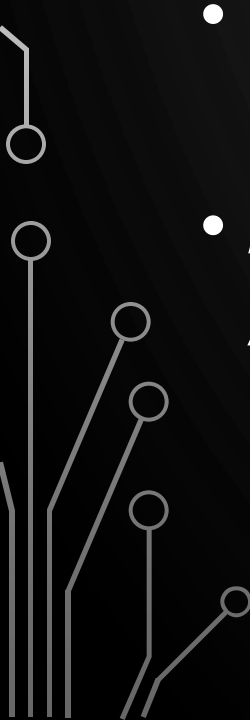
KEY PLATFORM ENHANCEMENTS (2022)

- XP System: Tracks student progress and incentivizes learning.

- In-app Coins & Leaderboards: Encourage competition and active participation.

- Streaks Feature: Motivates daily engagement.

- Expanded Course Library: Attracts a larger audience and boosts engagement.

DATA & METHODOLOGY

- Dataset includes student engagement metrics from 2021 & 2022.

- Key columns: Student ID, Country, Account Type (Paid/Free), Minutes Watched.

- Methods: Exploratory Data Analysis, Comparative Analysis, Statistical Testing.

KEY FINDINGS

- Engagement increased overall but varied across regions.

- Paid users showed higher engagement than free users.

- US engagement was significantly lower than India.

- The new features had a **positive impact on engagement trends.**

STATISTICAL ANALYSIS RESULTS

- T-Test (US vs India): **Significant difference** ($p < 0.0001$), US engagement lower.

- F-Test: Variance in engagement differed across regions.

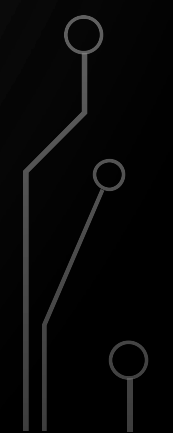- Results confirm regional disparities and engagement trends.

RECOMMENDATIONS

- **Personalized Learning Paths:** Adapt content to user preferences.

- **Enhanced Gamification:** Improve rewards and engagement tactics.

- **Regional Strategies:** Targeted marketing and incentives for low-engagement regions.

- **Monitor Impact:** Continuously analyze engagement trends to refine strategies.

CONCLUSION

- Engagement improved, but disparities exist across user groups.

- The new platform features contributed to increased participation.

- Data-driven strategies can further optimize engagement levels.

ACKNOWLEDGMENTS & THANK YOU

- Thanks to the 365Data Science Company team for data support.

- Insights derived using Python, Pandas, NumPy, and SciPy.

- Looking forward to further analysis and improvements!