
Zylentrics Data Analyst Intern Report

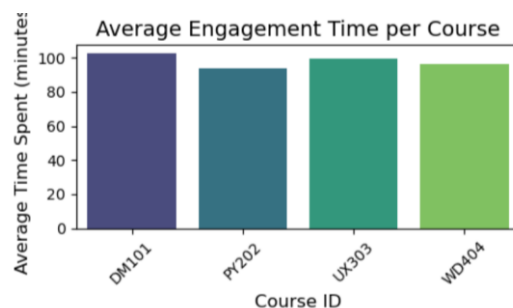
Title: Visual Insights & Recommendations

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Executive Summary

This report provides key insights into learner behavior, course engagement, and satisfaction based on three datasets: student information, course activity, and feedback. The goal is to identify patterns in engagement, satisfaction, and potential areas for course improvement — supported by visualizations and observations.

1. Average Engagement Time by Course



Visualization:

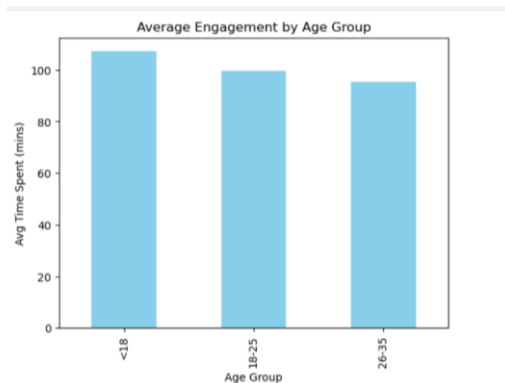
Insight:

- **Course DM101** had the **highest average engagement** (~95 minutes), indicating either rich content or longer sessions.
- **Course PY202** had the **lowest average time** (~55 minutes), despite receiving higher feedback ratings.

Recommendation:

- Review DM101's structure to ensure content is not overwhelming.
 - Explore whether PY202's concise format is a strength worth replicating.
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2. Engagement by Age Group



Visualization:

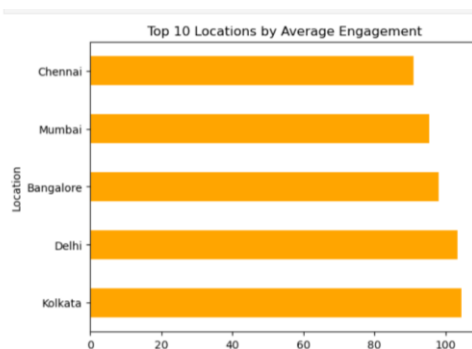
Insight:

- Learners aged **<18** spent the most time across all courses.
- Engagement drops slightly in older groups (26-35), potentially due to time constraints.

Recommendation:

- Target content personalization and flexibility for the <18 demographic.
- Consider modular courses or time-efficient formats for older learners.

3. Engagement by Location



Visualization:

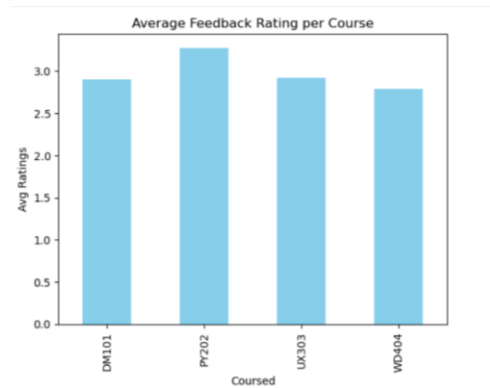
Insight:

- Students from **Kolkata** and **Delhi** showed **higher engagement** levels.
- Learners from other regions had lower interaction, possibly due to language barrier challenges.

Recommendation:

- Offer multilingual or region-sensitive course versions.
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4. Average Feedback Rating per Course



Visualization:

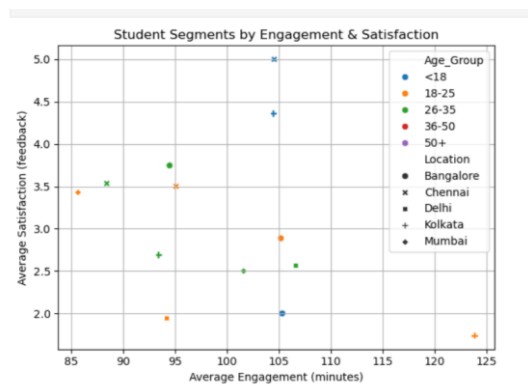
Insight:

- **Course PY202** received the **highest satisfaction rating** despite lower engagement.
- **Course DM101**, with high engagement, had a moderate rating, suggesting possible fatigue or content overload.

Recommendation:

- Investigate content clarity and UX in DM101.
- Study what makes PY202 well-liked and apply those patterns elsewhere.

5. Correlation Between Completion Rate and Feedback Rating



Visualization:

Insight:

- A **moderate positive correlation ($r = 0.56$)** exists between completion rates and feedback scores.
- Courses with higher satisfaction also tend to have better completion outcomes.

Recommendation:

- Focus on improving learner satisfaction to drive up completion rates.

- Introduce quick feedback loops to act on user pain points.
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6. 🎯 Top 3 Student Segments (Based on Engagement & Satisfaction)

Visualization:

Segment Characteristics		Engagement Satisfaction	
1	Age 26–35, Metro Cities	High	High
2	Age 18–25, Tier 1 or Students	Medium	High

Recommendation:

- Use these segments to design personalized learning paths.
 - Prioritize support and nudges for high-engagement, low-satisfaction users.
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Final Recommendations

1. **Audit PY202** for potential improvements in pacing or design.
 2. **Invest in learner experience for <18 age group.**
 3. **Drive completion by improving satisfaction.**
 4. **Improve language accessibility for users from different region.**
 5. **Create customized content strategies for top learner segments.**
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