D214 Performance Assessment Report

Task 3: Presentation of Findings

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Romance And Action Reader Trends

# Executive Summary and Implications

The objective of this study was to compare the performance of Action and Romance genres in the Top Goodreads Books Collection (1980–2023) dataset. The research sought to determine whether there is a statistically significant difference in average rating scores and number of reviews between the two genres. The hypothesis proposed that Romance books have higher engagement (measured by reviews) but comparable ratings to Action books.

The data-analysis process employed a structured workflow. Descriptive statistics were used to summarize key metrics, such as average ratings, number of reviews, and book counts, for each genre. The data was grouped by genres and publication decades to compute averages for ratings and reviews, enabling temporal trend analysis. Hypothesis testing was performed using two-sample t-tests to statistically compare the mean rating scores and reviews between genres. To visualize trends, line graphs and bar charts were created, highlighting differences in performance across decades. This combination of statistical methods and visual tools provided a comprehensive understanding of how these genres have evolved over the past four decades.

The analysis revealed several key findings. Romance books consistently outperformed Action books in terms of reader engagement, with an average of 11,505 reviews compared to Action's 8,615 reviews. However, the average rating scores were comparable, with Romance slightly ahead at 4.05 and Action at 4.04. Temporal trends showed that Romance books experienced the most dramatic growth in reviews, peaking at 23,979 reviews in the 2020s, while Action books peaked earlier in the 2010s at 20,236 reviews. Hypothesis testing validated these results: the t-test for reviews showed a statistically significant difference (p-value = 0.0008), confirming that Romance books attract more reviews. Conversely, the t-test for ratings showed no significant difference (p-value = 0.1769), indicating similar reader satisfaction across genres.

Despite the robust analysis, some limitations exist. Aggregating data by decades and calculating averages may obscure variability and outliers within the dataset. Additionally, the dataset reflects primarily English-speaking Goodreads users, limiting the generalizability of findings to a global audience. Furthermore, the t-tests assume normality, which may not strictly hold for all data points, requiring validation through non-parametric alternatives in future analyses. These limitations highlight the need for cautious interpretation of the results.

Based on the findings, it is recommended that publishers and authors focus on further promoting Romance books, leveraging their strong reader engagement and increasing popularity. For the Action genre, strategies to boost visibility and attract more reader interactions—such as targeted campaigns or collaborations—could help narrow the gap in reviews. These actions could lead to higher market share and revenue growth for publishers while ensuring that readers remain engaged.

This study offers several benefits. For publishers, prioritizing Romance books can capitalize on their growing popularity, as evidenced by a 150% increase in average reviews from 2000 to 2020. For authors, understanding reader preferences allows for tailored content creation that aligns with audience demands. Finally, for marketing teams, insights into decade-specific trends provide a foundation for effective and data-driven campaigns. By aligning strategies with these findings, stakeholders can maximize engagement, satisfaction, and profitability across genres.

**Code and Data References**

Cristaliss. (2023). *Ultimate Book Collection: Top 100 Books Up to 2023* [Data set]. Kaggle. Retrieved from <https://www.kaggle.com/datasets/cristaliss/ultimate-book-collection-top-100-books-up-to-2023>