College Event Feedback Analysis

(Data Science & Analytics Internship – Future Interns)

1. Introduction

Academic events such as workshops, seminars, and training sessions play an important role in student learning and engagement. Collecting feedback after such events helps institutions understand participant experiences and identify areas for improvement.

This report analyzes student feedback data collected after academic events. The objective is to evaluate overall satisfaction, identify strengths and weaknesses across different event aspects, and provide actionable recommendations to improve the quality of future events.

2. Approach

The analysis is based on numerical feedback ratings provided by students across multiple event-related aspects. The following steps were followed:

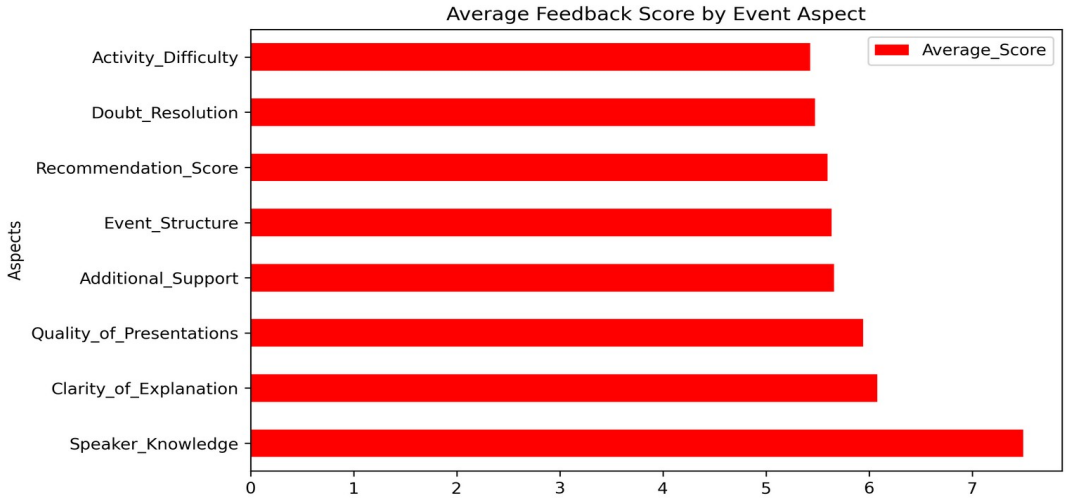
- Data cleaning and preprocessing
- Exploratory Data Analysis (EDA)
- Calculation of overall satisfaction score
- Rating-based sentiment analysis
- Visualization of trends and distributions
- Insight generation and recommendations

Since the dataset does not include textual feedback, sentiment analysis is performed by interpreting numerical ratings as indicators of participant sentiment.

3. Exploratory Data Analysis (EDA)

3.1 Average Feedback Scores by Aspect

Image: Average Score per Aspect (Bar Chart)



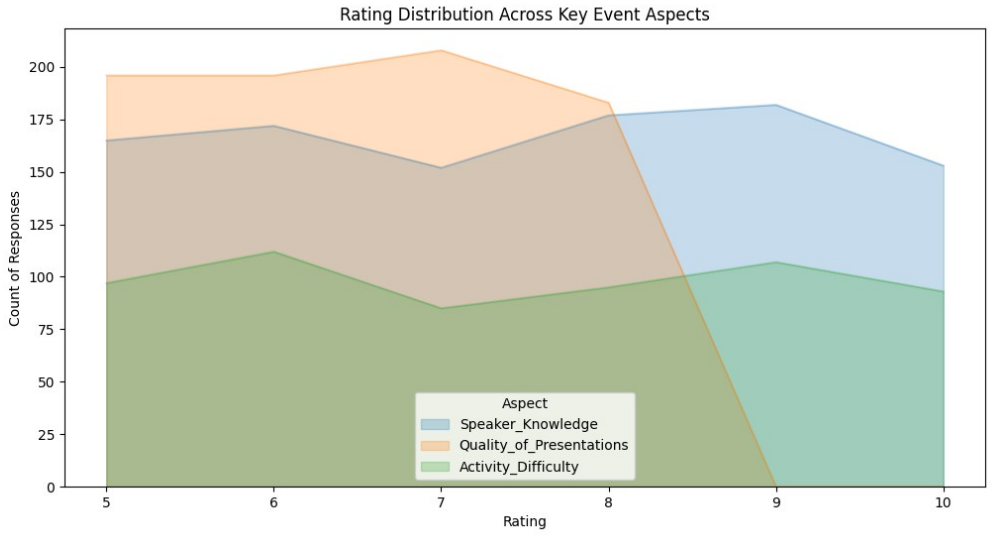
This visualization highlights the average rating received by each event aspect. It helps identify which areas performed well and which require improvement.

Key Observations:

- Speaker Knowledge received the highest average rating.
- Doubt Resolutionand activity difficulty show relatively lower scores.
- Ratings suggest generally acceptable but not exceptional event experiences.

3.2 Distribution of Ratings Across Key Aspects

This area chart compares rating distributions for three representative aspects: Speaker Knowledge, Quality of Presentations, and Activity Difficulty.



Area Chart – Rating Distribution

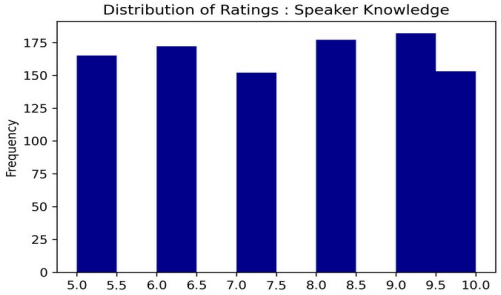
Key Observations:

- Speaker Knowledge shows consistent ratings across higher values.
- Activity Difficulty reflects mixed participant experiences.
- Quality of Presentations has high engagement but a sharp drop at top ratings, indicating limited excellence.

1) Speaker Knowledge

Notes:

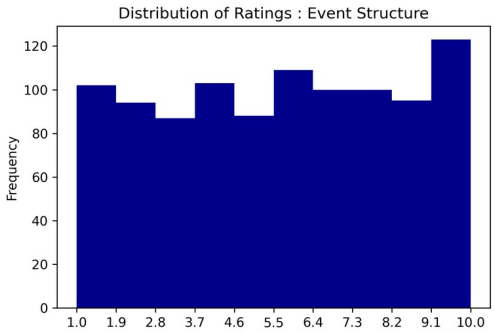
- Ratings for Speaker Knowledge are evenly distributed across higher values.



- This indicates consistent satisfaction among participants and highlights speaker expertise as a key strength of the events.

2) Doubt Resolution

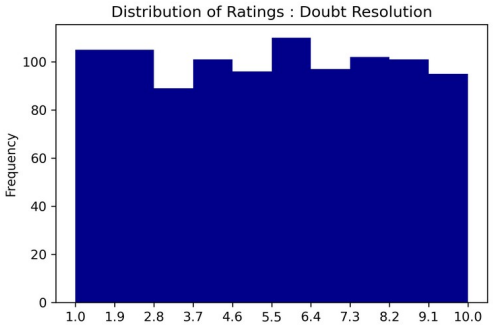
Notes:



- Ratings for Doubt Resolution are distributed across a wide range, from lower to higher values.
- This wide variation indicates inconsistent participant experiences.
- The results suggest a need for improved interaction and more structured doubt-clearing sessions during events.

3) Event Structure

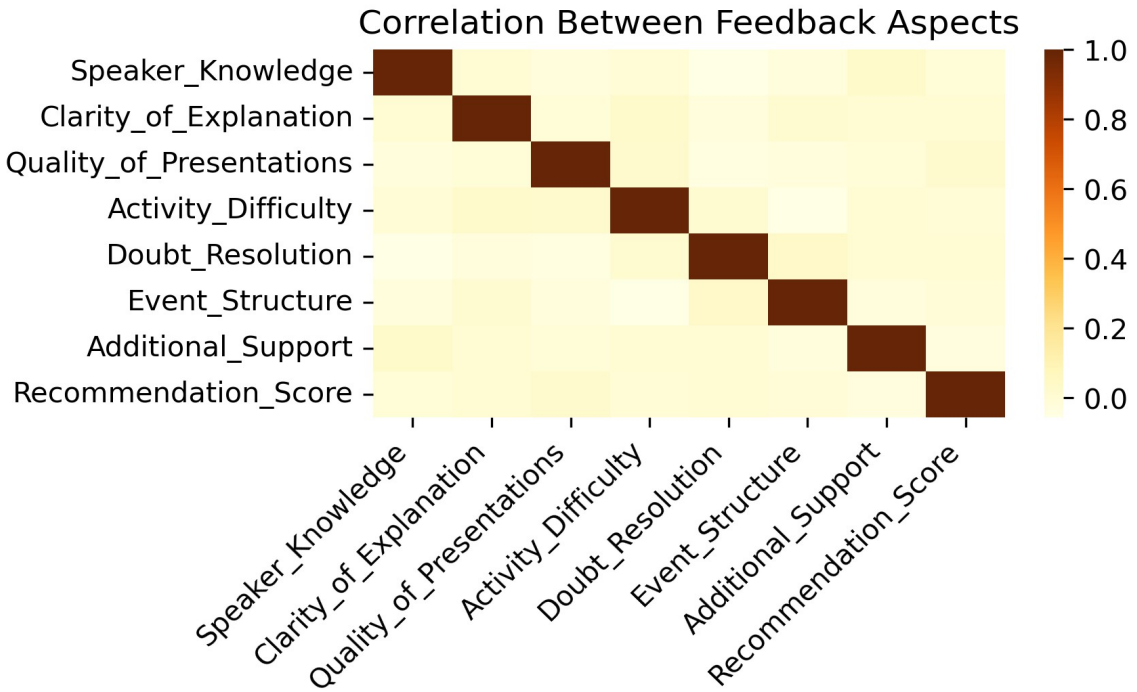
Notes:



- Ratings for Event Structure are relatively evenly distributed across the scale.
- This reflects a balanced but average perception of event organization and flow.Minor improvements in planning and structure could help improve overall participant satisfaction.

3.3 Correlation Analysis Between Feedback Aspects

Image: **Correlation Heatmap**



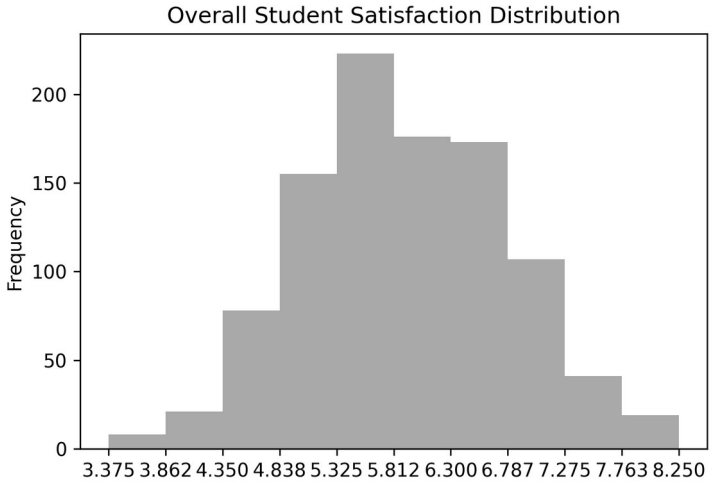
The correlation heatmap illustrates relationships between different feedback aspects to understand whether improvements in one area influence others.

Key Observations:

- Most aspects show weak correlations with each other.
- This indicates that each feedback dimension independently influences overall satisfaction.
- Improvements should therefore be made across multiple aspects rather than focusing on a single area.

3.4 Overall Satisfaction Distribution

Image: Overall Satisfaction Histogram



The overall satisfaction score was calculated by averaging ratings across all aspects for each participant.

Key Observations:

- Most satisfaction scores fall in the mid-range.
- This indicates moderate satisfaction, with scope for improvement in the overall event experience.

Figures included: Bar chart, Area chart, Histograms, Heatmap.

4. Sentiment Analysis Summary

Sentiment Analysis Approach

Numerical ratings are used to infer sentiment due to the absence of textual feedback. Overall satisfaction scores are categorized as follows:

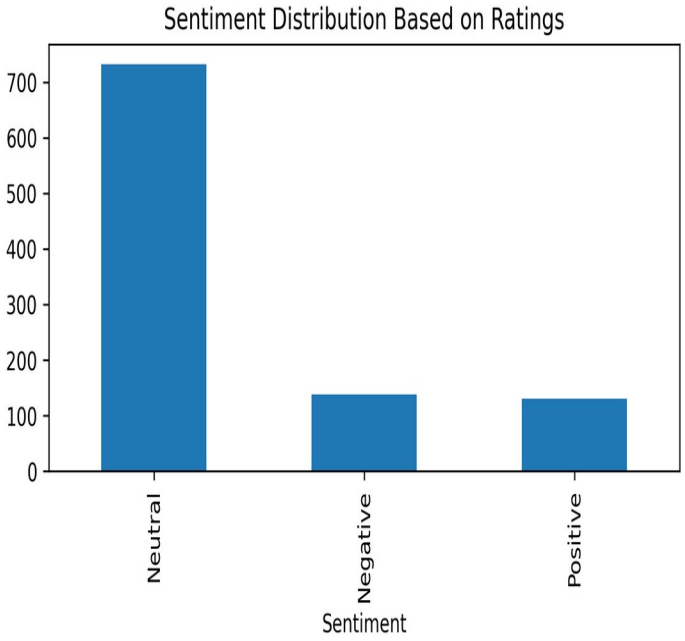
- Positive sentiment: High satisfaction scores
- Neutral sentiment: Moderate satisfaction scores
- Negative sentiment: Low satisfaction scores

Sentiment Distribution

Image: Sentiment Distribution Bar Chart

Key Observations:

- The majority of feedback falls under neutral sentiment.
- A smaller portion of responses reflect positive sentiment.
- Negative sentiment, though limited, highlights areas requiring targeted improvement.



5. Insights and Interpretation

- Speaker expertise is a consistent strength across events.
- Presentation delivery and activity design show variability in participant perception.
- Weak correlations between feedback aspects suggest that each area independently influences satisfaction.
- Neutral sentiment dominance indicates that events meet expectations but do not consistently exceed them.

6. Future Suggestions and Improvements

The analysis highlights several opportunities to improve the overall quality and impact of future college events. Based on participant feedback, the following recommendations are proposed.

1) Enhancing Presentation Quality:
Improving slide design, visual clarity, and content flow can help move participant feedback from “good” to “excellent.” Establishing standard presentation guidelines across events would ensure consistency and improve the overall delivery experience.

2) Strengthening Doubt Resolution Mechanisms:
Introducing dedicated question-and-answer sessions or structured discussion slots during events can significantly improve participant engagement. Encouraging speakers to actively interact with attendees may help reduce variability in doubt-resolution experiences.

3) Optimizing Activity Difficulty:
The difficulty level of activities should be re-evaluated to better align with participants of varying skill levels. Providing optional beginner-friendly and advanced tasks can help ensure that all participants remain engaged and satisfied.

4) Improving Participant Support:
Offering additional support for students who go beyond basic requirements, such as follow-up sessions or supplementary learning resources, can enhance the perceived value of events and promote long-term engagement.

5) Focusing on the Holistic Event Experience:
Since feedback aspects appear to operate independently, improvements should be implemented across multiple dimensions rather than relying on a single strength. A balanced focus on content quality, delivery, interaction, and event structure can lead to higher recommendation scores.

6) Using Feedback for Continuous Improvement:
Regular analysis of feedback data after each event can help track progress and measure the effectiveness of improvements. Comparing feedback across multiple events supports data-driven planning and informed decision-making.

Overall, the analysis provides actionable insights that can help improve the quality and effectiveness of future college events by aligning event design more closely with participant expectations.

7. Conclusion

This analysis demonstrates how structured student feedback can be transformed into meaningful insights using data analytics techniques. While participants generally report satisfactory experiences, targeted improvements in presentation quality, interaction, and event structure can significantly enhance overall satisfaction. Applying these data-driven insights can help organizers design more impactful and engaging academic events in the future.

This analysis is limited to numerical feedback and does not include qualitative student comments, which could provide deeper contextual insights.