# Title:

**Empathy Map Comprehensive Analysis and Dietary Strategies with Tableau: A College Food Choices Case Study**

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# 1. Introduction

- **Objective:**
  Understand how college students make food choices and what drives their dietary behaviors.
- **Methodology:**
  Use Empathy Maps for qualitative insight and Tableau for quantitative visualization to develop tailored dietary strategies.
- **Importance:**
  College students face unique challenges: limited budgets, time constraints, stress, and variable food availability. Identifying these barriers can guide better nutritional interventions.

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# 2. Empathy Map Analysis

Empathy Maps are divided into four key quadrants: **Says, Thinks, Does, Feels.** These are informed by interviews, surveys, and observations.

### Target Persona:

**"Alex," a 20-year-old sophomore living on campus. Budget: $50/week for food.**

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### Says

- "I want to eat healthy but it’s expensive."
- "I don’t have time to cook every day."
- "The cafeteria food is hit or miss."

### Thinks

- “I should probably eat more vegetables.”
- “Fast food is convenient, but I feel guilty.”
- “Meal prepping sounds good, but I never follow through.”

### Does

- Eats late at night.
- Orders delivery 2-3x per week.
- Snacks during study sessions.

### Feels

- Anxious about weight and energy.
- Guilty after binge eating.
- Overwhelmed by meal planning.

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# 3. Tableau Data Visualization

### Data Sources:

- Student food diaries
- Campus dining logs
- Survey responses (Likert-scale, frequency-based)
- Budget vs actual food spending

### Visual Dashboards (built in Tableau):

1. **Dietary Habits Overview**
    - % of students eating breakfast, lunch, dinner
    - Popular food types by meal
2. **Nutrient Intake Distribution**
    - Macro intake: Protein, Carbs, Fats
    - Sugar and caffeine spikes during finals
3. **Food Spending by Category**
    - Grocery vs Dining Out vs Vending
    - Weekly trend lines
4. **Satisfaction and Emotional Correlation**
    - Self-reported satisfaction vs food choice
    - Emotional state tag clouds
5. **Time & Convenience Heatmap**
    - Time of day vs food choice frequency
6. **Persona Segmentation**
    - Healthy eaters, budget eaters, emotional eaters, convenience seekers

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# 4. Key Findings

- **Top 3 Barriers:** Time, cost, and convenience
- **Nutrient Gaps:** Low fiber, high sugar/caffeine during stress periods
- **Spending Trends:** 60% spend more on delivery than groceries
- **Emotion-Food Link:** Higher emotional stress = increased snacking and caffeine

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# 5. Dietary Strategy Development

### Personalized Strategy Framework (based on persona & data):

| Area | Strategy |
|---|---|
| **Cost** | Budget meal planning templates; campus meal voucher guide |
| **Time** | 15-min healthy recipes; prep-in-bulk meal plans |
| **Convenience** | Snack box kits; healthy vending integration |
| **Stress Management** | Mindful eating workshops; nutrition & wellness sessions |

### Program Components:

- "SmartPlate" digital planner synced with Tableau dashboard insights
- Nutrition-focused campus ambassador program
- Monthly "Eat Better on a Budget" challenges

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# 6. Conclusion

Empathy Mapping helped uncover not just what students do, but **why** they do it. Tableau enabled a **quantitative validation** of these insights, providing a dual-lens approach to behavior-driven dietary strategy design.

This case study demonstrates the power of **human-centered design** and **data-driven nutrition policy** in shaping healthier, more sustainable eating patterns for college students.

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# Appendix (Optional)

- Sample empathy maps
- Tableau dashboard screenshots or URLs
- Survey instruments