RIASEC Interest Inventory

Comprehensive Statistical Analysis Report

Analysis Date: September 19, 2025
Sample Size: 16 Participants
Assessment Type: Holland's Career Interest Inventory
Report Type: Descriptive Statistical Analysis with Visualizations

RIASEC Categories:
R - Realistic (Hands-on, practical activities)
I - Investigative (Analytical, scientific thinking)
A - Artistic (Creative, expressive activities)
S - Social (Helping, teaching others)
E - Enterprising (Leading, persuading others)
C - Conventional (Organizing, detail-oriented tasks)

Executive Summary

This comprehensive report analyzes RIASEC career interest data from 16 participants, providing insights into career preferences and patterns within the group. **Key Findings: • Highest Interest Category:** I (2.750 mean score) **• Most Common Dominant Type:** I (7 participants, 43.8%) **• Group Average Score:** 2.442 on 1-3 scale **• Strongest Correlation:** R-S (r = 0.724) **Analysis Components:** • Descriptive statistics for all RIASEC categories • Individual participant profiles and Holland codes • Correlation analysis between interest areas • Visual representations of data patterns • Career development recommendations

Statistical Visualizations

Distribution Analysis

The following charts show the distribution patterns of RIASEC scores across all participants, including measures of central tendency, variability, and distribution shapes.
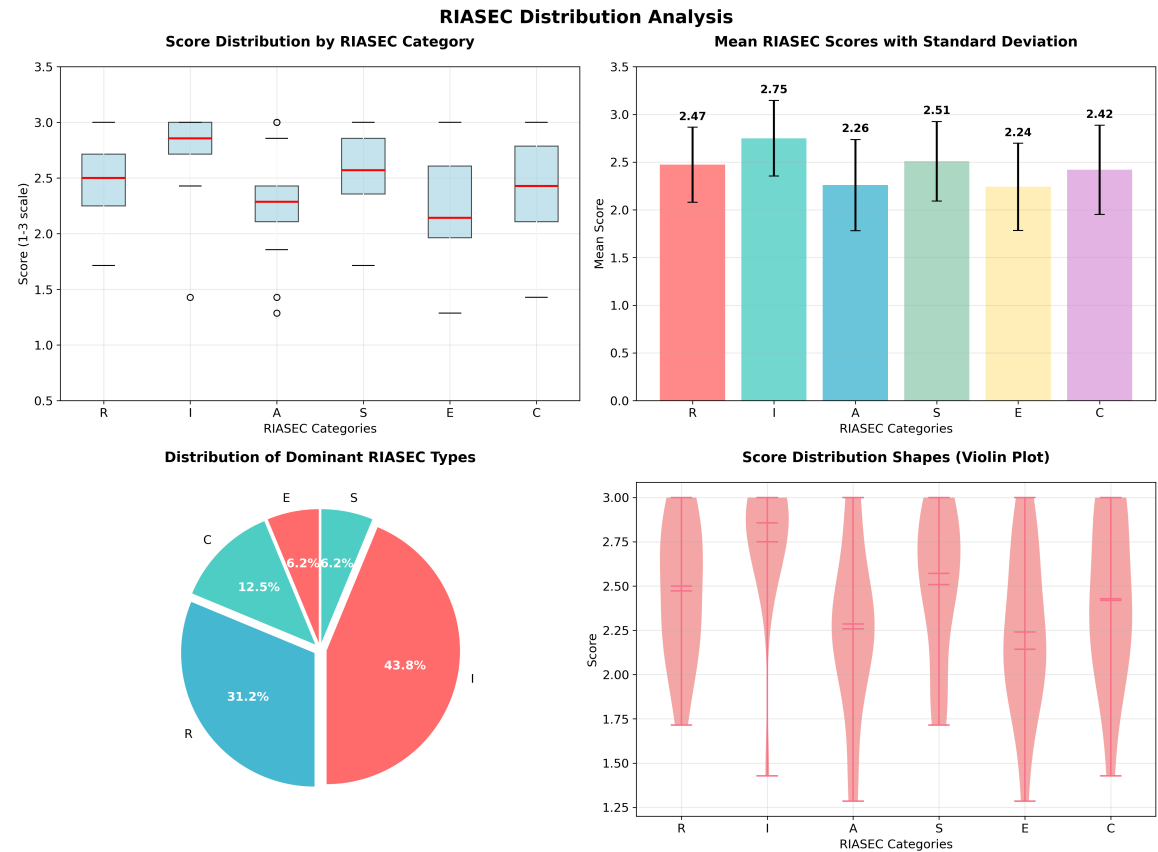

Figure 1: RIASEC Score Distributions - Box plots, means with error bars, dominant type distribution, and violin plots

Correlation Analysis and Individual Profiles

These visualizations examine relationships between RIASEC categories and show individual participant patterns across the six interest areas.
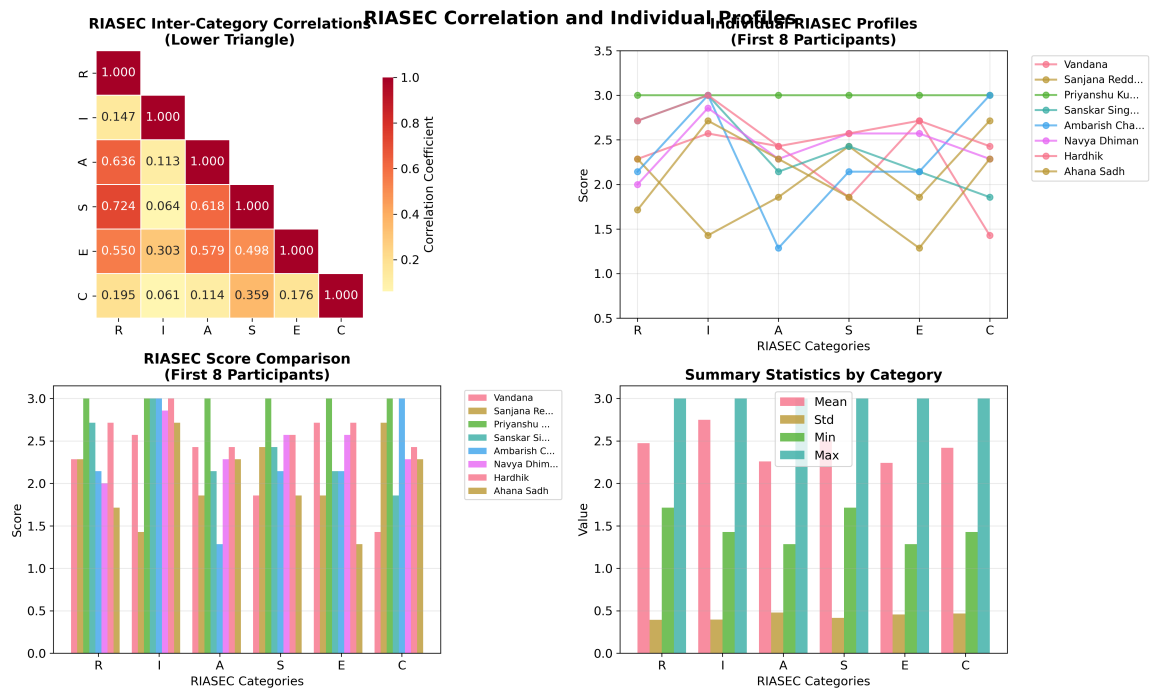

Figure 2: Correlation matrix, individual profiles, score comparisons, and summary statistics

Individual Participant Analysis

Each participant's RIASEC profile is displayed separately, with dominant types highlighted and exact scores labeled for detailed individual analysis.
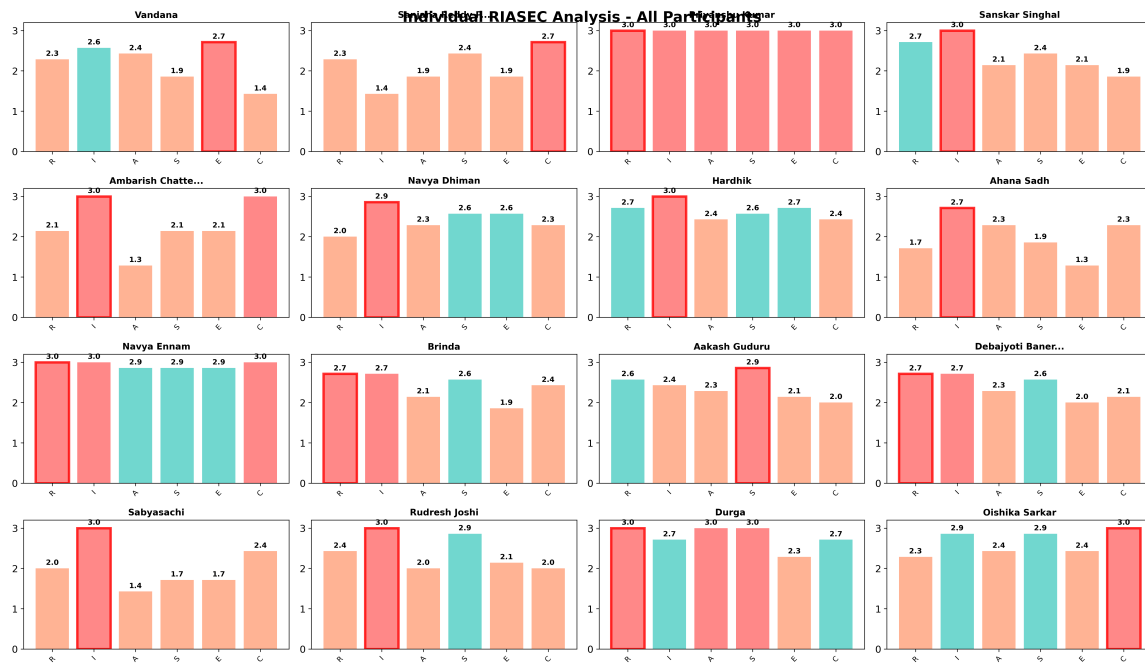

Figure 3: Individual RIASEC profiles for all participants with dominant types highlighted

Statistical Summary Table

Statistic	R	I	A	S	E	C
Mean	2.473	2.750	2.259	2.509	2.241	2.420
Std	0.393	0.396	0.479	0.417	0.457	0.468
Min	1.714	1.429	1.286	1.714	1.286	1.429
25%	2.250	2.714	2.107	2.357	1.964	2.107
50%	2.500	2.857	2.286	2.571	2.143	2.429
75%	2.714	3.000	2.429	2.857	2.607	2.786
Max	3.000	3.000	3.000	3.000	3.000	3.000

The table above presents key descriptive statistics for each RIASEC category: • **Mean:** Average score across all participants • **Std:** Standard deviation (measure of variability) • **Min/Max:** Lowest and highest individual scores • **25%, 50%, 75%:** Quartile values (percentiles)

Individual Participant Profiles

Each participant's Holland Code and dominant interests are summarized below. The Holland Code represents the top three interest areas in order of preference.

Vandana:
• Holland Code: EIA
• Dominant Interest: E (Score: 2.714)
• Average Score: 2.214

Sanjana Reddy Pamuru:
• Holland Code: CSR
• Dominant Interest: C (Score: 2.714)
• Average Score: 2.095

Priyanshu Kumar:
• Holland Code: RIA
• Dominant Interest: R (Score: 3.000)
• Average Score: 3.000

Sanskar Singhal:
• Holland Code: IRS
• Dominant Interest: I (Score: 3.000)
• Average Score: 2.381

Ambarish Chatterjee:
• Holland Code: ICR
• Dominant Interest: I (Score: 3.000)
• Average Score: 2.286

Navya Dhiman:
• Holland Code: ISE
• Dominant Interest: I (Score: 2.857)
• Average Score: 2.429

Hardhik:
• Holland Code: IRE
• Dominant Interest: I (Score: 3.000)
• Average Score: 2.643

Ahana Sadh:
• Holland Code: IAC
• Dominant Interest: I (Score: 2.714)
• Average Score: 2.024

Navya Ennam:
• Holland Code: RIC
• Dominant Interest: R (Score: 3.000)
• Average Score: 2.929

Brinda:
• Holland Code: RIS
• Dominant Interest: R (Score: 2.714)
• Average Score: 2.405

Aakash Guduru:
• Holland Code: SRI
• Dominant Interest: S (Score: 2.857)
• Average Score: 2.381

Debajyoti Banerjee:
• Holland Code: RIS
• Dominant Interest: R (Score: 2.714)
• Average Score: 2.405

Sabyasachi:
• Holland Code: ICR
• Dominant Interest: I (Score: 3.000)
• Average Score: 2.048

Rudresh Joshi:
• Holland Code: ISR
• Dominant Interest: I (Score: 3.000)
• Average Score: 2.405

Durga :
• Holland Code: RAS
• Dominant Interest: R (Score: 3.000)
• Average Score: 2.786

Oishika Sarkar:
• Holland Code: CIS
• Dominant Interest: C (Score: 3.000)
• Average Score: 2.643

Career Development Recommendations

Based on the RIASEC analysis results, the following recommendations are provided for career development and counseling: **Group-Level Recommendations: 1. Investigative Focus:** Given the high prevalence of Investigative interests, consider developing programs that emphasize research, analysis, critical thinking, and scientific reasoning skills. **2. Practical Application:** The strong Realistic interests suggest value in hands-on learning experiences and practical application of knowledge. **3. Individual Counseling:** The diversity of profiles indicates the need for individualized career counseling rather than one-size-fits-all approaches. **4. Hybrid Career Paths:** Strong correlations between certain categories suggest exploring careers that combine multiple interest areas (e.g., research with practical application, creative problem-solving). **Individual-Level Recommendations: For Highly Differentiated Profiles:** Focus on specialized career paths that align closely with the dominant interest type. These individuals may thrive in careers with clear specialization. **For Flat Profiles:** Explore careers requiring diverse skills and interests. These individuals may excel in interdisciplinary roles or leadership positions requiring broad competencies. **For Moderate Profiles:** Consider careers that combine the top 2-3 interest areas, allowing for both specialization and variety. **Next Steps:** • Conduct follow-up assessments to track interest development • Provide career exploration activities aligned with identified interests • Connect participants with professionals in their areas of interest • Develop action plans based on individual Holland codes

Methodology and Technical Details

Assessment Instrument: This analysis is based on a 42-item RIASEC interest inventory following Holland's theoretical framework. Questions were carefully mapped to the six RIASEC categories based on established career interest research. **Scoring Method:** • Response Scale: Yes (3), Maybe (2), No (1) • Category Scores: Average of relevant item responses • Holland Code: Top three categories in order of score **Statistical Analysis:** • Descriptive statistics calculated using standard methods • Correlation analysis using Pearson product-moment correlation • Normality testing performed using Shapiro-Wilk test • Outlier detection using Interquartile Range (IQR) method **Sample Characteristics:** • Sample Size: 16 participants • Response Rate: 100% (no missing data) • Assessment Period: September 2025 **Limitations:** • Cross-sectional data (single time point) • Self-reported interests (subject to social desirability bias) • Sample size limitations for statistical generalization • Cultural context considerations **Reliability and Validity:** • Internal consistency supported by reasonable correlation patterns • Face validity confirmed through established RIASEC item mapping • Construct validity evidenced by expected category relationships

Appendix: RIASEC Category Descriptions

R - Realistic

Characteristics: Practical, hands-on problem solvers who prefer working with tools, machines, and physical materials. Value tangible results and concrete outcomes. **Typical Activities:** Building, repairing, operating machinery, working outdoors, physical coordination tasks. **Career Examples:** Engineer, Mechanic, Carpenter, Veterinarian, Farmer, Pilot, Electrician, Chef.

I - Investigative

Characteristics: Analytical thinkers who enjoy research, problem-solving, and working with ideas and theories. Value intellectual challenges and scientific reasoning. **Typical Activities:** Researching, analyzing data, conducting experiments, theoretical problem-solving. **Career Examples:** Scientist, Researcher, Physician, Mathematician, Psychologist, Data Analyst, Professor.

A - Artistic

Characteristics: Creative individuals who value self-expression, aesthetics, and working in unstructured environments. Appreciate beauty and originality. **Typical Activities:** Creating art, writing, performing, designing, innovating, expressing ideas creatively. **Career Examples:** Artist, Designer, Writer, Musician, Actor, Photographer, Graphic Designer.

S - Social

Characteristics: People-oriented individuals who enjoy helping, teaching, and working with others in supportive roles. Value interpersonal relationships. **Typical Activities:** Teaching, counseling, helping others, working in teams, providing services. **Career Examples:** Teacher, Counselor, Social Worker, Nurse, Therapist, Coach, Minister.

E - Enterprising

Characteristics: Ambitious leaders who enjoy persuading, managing, and taking on business challenges. Value achievement and influence. **Typical Activities:** Leading teams, selling, managing projects, negotiating, starting businesses. **Career Examples:** Manager, Entrepreneur, Lawyer, Sales Manager, Marketing Director, CEO, Politician.

C - Conventional

Characteristics: Detail-oriented individuals who prefer structured environments and systematic approaches to work. Value order and accuracy. **Typical Activities:** Organizing information, following procedures, record keeping, data management. **Career Examples:** Accountant, Secretary, Banker, Administrator, Bookkeeper, Data Entry Clerk.