



# A Recommendation System for Students Career Selection

Chantal Anita



## Main Objective

- The main purpose behind this research is to develop a recommendation system for students' career selection.

Vision  
Creativity

# Problem

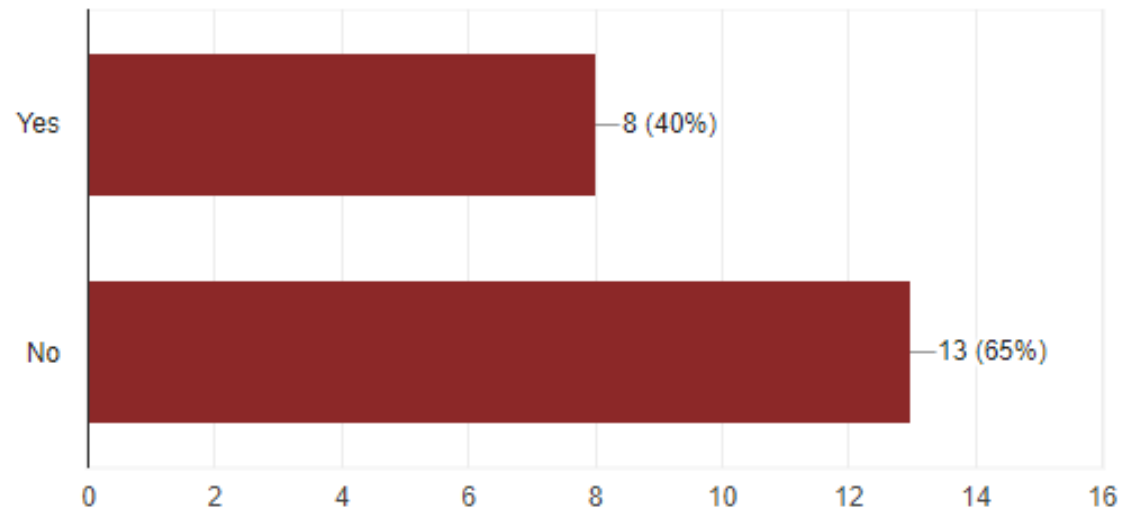
- Students enrol into higher learning institutions only to realize that they have chosen the wrong course to pursue, they lose on time and money.
- Selection of the wrong career means that there is a mismatch between the student's potential and a suitable career.



# Study

Did you know your career before choosing your undergraduate course?

20 responses



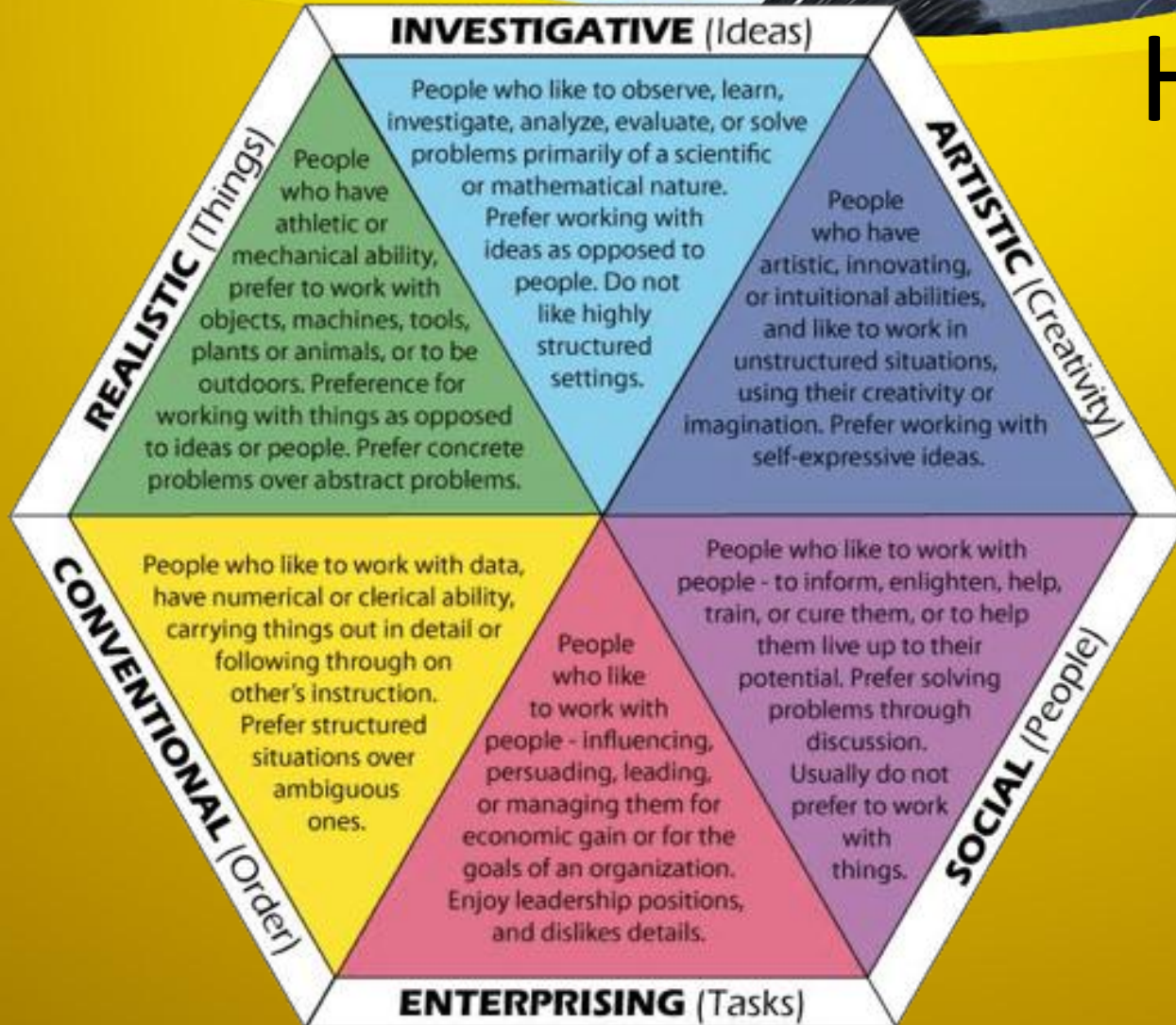


# Personality

- According to (Holland, 1997) the theory of career choice, is weighted by three factors;
  - i. A clear understanding of oneself: interests, aptitude, abilities, resources, ambitions, personality and limitations.
  - ii. Knowledge on the career exploration; a clear understanding on the requirements and conditions of success.
  - iii. Ability to make an honest decision based on the above factors.

Vision  
Creativity

# Holland's theory





## R\_Realistic

1. Working on cars. - - + +
2. Working outdoors. - - + +
3. Taking care of animals. - - + +
4. Cooking. - - + +
5. Building things . - - + +
6. Putting things together or assembling things. - - +
7. Being practical. - - + +

## I\_Investigative

8. Doing puzzles. - - + +
9. Science. - - + +
10. Figuring out how things work. - - + +
11. Analysing things (problems/situations). - - + +
12. Conducting experiments. - - + +
13. Working with numbers or charts. - - + +
14. Solving maths. - - + +

## A\_Artistic

15. Working independently. - - + +
16. Being creative. - - + +
17. Creative writing. - - + +
18. Acting in plays. - - + +
19. Drawing. - - + +
20. Playing instruments or singing. - - + +
21. Reading about art and music. - - + +

## S\_Social

22. Working in teams. - - + +
23. Healing people. - - + +
24. Learning about other cultures. - - + +
25. Helping people. - - + +
26. Getting into discussions about issues. - - + +
27. Teaching or training peoples. - - + +
28. Helping people solve their problems. - - + +

## E\_Enterprising

29. Setting goals for myself. - - + +
30. Taking on new responsibilities. - - + +
31. Selling things. - - + +
32. Giving speeches. - - + +
33. Being a leader. - - + +
34. Influencing or persuading others. - - + +
35. Starting my own business. - - + +

## C\_Conventional

36. Organising things, (files, and desks/offices). - - + +
37. Following instructions. - - + +
38. Working 8 hours per day in an office. - - + +
39. Paying attention to details. - - + +
40. Filing or typing. - - + +
41. Keeping records of my work. - - + +
42. Working in an office. - - + +

novation

# Algorithm

- Each question is assigned a weight of 1 and a group. There are upto six groups.
- Strongly Agree (5)
- Agree (3)
- Neutral (0)
- Disagree (-3)
- Strongly Disagree (-5)
- The user chooses prompt values for any numbers of questions.
- System calculates value points on each question using the formula
- $\text{value point} = 1 * \text{selected prompt value}$
- The selected questions are then regrouped into their respective groups and an array of running sum of value points for each group found i.e.
- array of groups = [total questions in group A, .....]
- array of points = [sum for group A, sum for group B, .....]
- 
- System then finds the top 3 values from the array
- It recommends careers from the database that match these groups.
- Selects up to 12 careers

**Your score is 14**

**Recommended Career(s):**

**Career:** Game Writer(Video Game Developer), Variety Perform Facet: AEI

**Career:** Industrial Health Engineers, Industrial Hygiene En Facet: EIC

**Career:** Airline Flight Attendants, Barber, Chef, Chief Exe Facet: ESR

**Career:** Animal Behaviorist, Bio-informaticians, Bio-proces Facet: IAR

**Career:** Boatswains, chief Technicians, Technical Superviso Facet: ERC

**Career:** Copywriter, Dance therapist, Painter, Radio and Te Facet: ASI

**Career:** Fiction Writers, Medical Illustrator, Writers Facet: AIE

**Career:** Costumer Designer, Fashion Designer and Image Cons Facet: ASR

**Career:** Auditor, Training & Development Specialist (appren Facet: EIS

**Career:** zoologist, biologist, statistician, pathologist, a Facet: IRE

**Career:** Acupuncturist, Audiologists, Dentist, Dermatologis Facet: ISR

**Career:** Animators(video games), Dancer (ethnic, ballet, Ja Facet: AER

**You are extroverted!**

On the opposite side of the coin, people who are extroverted are energized by people. They usually enjoy spending time with others, as this is how they recharge from time spent alone focusing or working hard.

I like how this extrovert explains the way he/she gains energy from being around other people:

When I am among people, I make eye contact, smile, maybe chat if there's an opportunity (like being stuck in a long grocery store line). As an extrovert, that's a small 'ping' of energy, a little positive moment in the day.