

PYTHON - Application of Enneagram in Human Resource Training



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Content

1. Programme Objective

2. Programme Content

Part 1: Data Collection

Part 2: Data Visualization

3. Application to Human Resource Training



1. Programme Objective

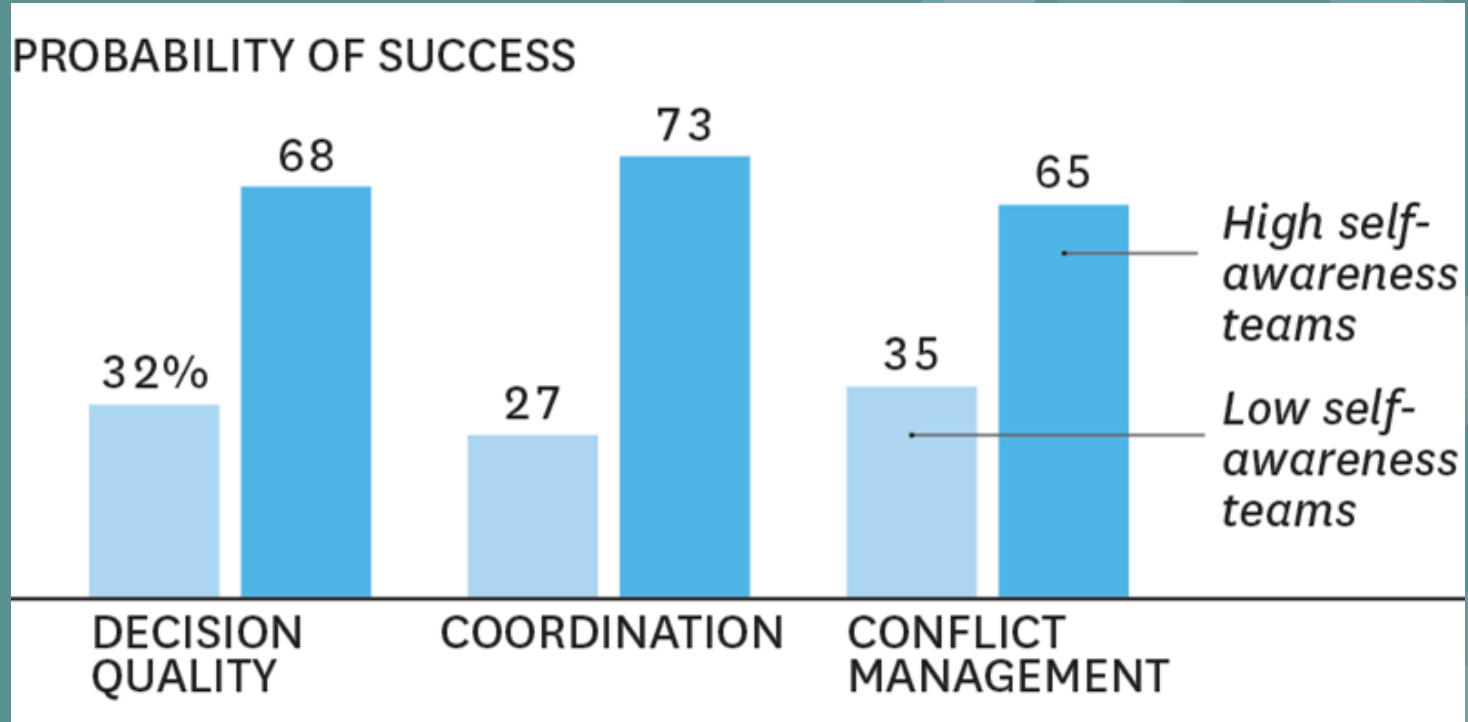


Programme Objective

- Study between self-evaluations and objective assessments (2014)
- interviewed 357,000 people



Programme Objective



Programme Objective Statement

To better collect and analyse data of employees' personality,

*In order to assist human resource professional in providing
related training*

So as to enhance overall workplace performance.

2. Programme Content



Programme Content

Part 1: Data Collection (Simple Code)

Part 2: Data Visualization (Pandas)



Code Illustration

Part 1 - Data Collection

- Uses Enneagram (九型人格)
- Uses ***Riso-Hudson Enneagram Type Indicator (RHETI)***
- Has 144 forced-choice questions

Example - Q1

A. I have been romantic and imaginative.

B. I have been pragmatic and down to earth.

MEDIATOR

Attention goes to: conflict and discomfort.
Energy goes into other people and avoiding/
preventing conflicts.

PROTECTOR

Attention goes to: those who need
protection and to power and control.
Energy goes into being powerful, pro-
tecting and fighting.

PERFECTIONIST

Attention goes to: what is right and
wrong, being good. Energy goes into
trying to improve.

EPICURE 7

Attention goes to: what limits
and constraints. Energy goes into
interesting ideas and pleasurable
experiences.

2 GIVER

Attention goes to: the wants and
needs of others, being appreciated.
Energy goes in to giving & helping.

LOYAL SKEPTIC

Attention goes to: hazards and
potential worst-case scenarios.
Energy goes into becoming vigilant,
questioning or doubting.

PERFORMER

Attention goes to: what brings
success & gaining approval. Energy
goes into achieving goals, tasks and
prestige.

OBSERVER

Attention goes to: the expectations of
others. Energy goes into becoming private
and self-sufficient and acquiring knowledge.

ROMANTIC

Attention goes to: what is missing. Energy
goes into searching for the most unique,
special and fulfilling.



Code Illustration

```
1 while True:
2     print("The Riso-Hudson Enneagram Type Indicator (RHETI version 2.5) is one of the most popular Enneagram-b
3     agreement = input("Do you understand all terms before you start? Yes or No")
4     if (agreement == "Yes") or (agreement == "yes"):
5         break
6     elif (agreement == "No") or (agreement == "no"):
7         print("Thank you for your interest.")
8         continue
9     else:
10        print("Please enter Yes or No.")
11        continue
12
13 type_1 = 0
14 type_2 = 0
15 type_3 = 0
16 type_4 = 0
17 type_5 = 0
18 type_6 = 0
19 type_7 = 0
20 type_8 = 0
21 type_9 = 0
22
23 #Q1
24 while True:
25     Q1 = input("Q1 A. I have been romantic and imaginative. / B. I have been pragmatic and down to earth.")
26     if (Q1 == "A") or (Q1 == "a"):
27         type_4 = type_4 + 1
28         break
29     elif (Q1 == "B") or (Q1 == "b"):
30         type_6 = type_6 + 1
31         break
32     else:
33         print("Please enter either A or B")
34         continue
35
36 #Q2
37 while True:
38     Q2 = input("Q2 A. I have tended to take on confrontations. / B. I have tended to avoid confrontations. ")
39     if (Q2 == "A") or (Q2 == "a"):
40         type_8 = type_8 + 1
41         break
42     elif (Q2 == "B") or (Q2 == "b"):
```

```
46 while True:
47     Q19 = input("Q19. A. Generally, I've been methodical and cautious. / B. Generally, I've been adventurous and tak
48     if (Q19 == "A") or (Q19 == "a"):
49         type_6 = type_6 + 1
50         break
51     elif (Q19 == "B") or (Q19 == "b"):
52         type_7 = type_7 + 1
53         break
54     else:
55         print("Please enter either A or B")
56         continue
57 #Q20
58 while True:
59     Q20 = input("Q20. A. I have tended to be a supportive, giving person who seeks intimacy with others. / B. I have
60     if (Q20 == "A") or (Q20 == "a"):
61         type_2 = type_2 + 1
62         break
63     elif (Q20 == "B") or (Q20 == "b"):
64         type_1 = type_1 + 1
65         break
66     else:
67         print("Please enter either A or B")
68         continue
69 #Q21
70 while True:
71     Q21 = input("Q21. A. I've often felt the need to be a pillar of strength. / B. I have often felt the need to per
72     if (Q21 == "A") or (Q21 == "a"):
73         type_8 = type_8 + 1
74         break
75     elif (Q21 == "B") or (Q21 == "b"):
76         type_3 = type_3 + 1
77         break
78     else:
79         print("Please enter either A or B")
80         continue
81 #Q22
82 while True:
83     Q22 = input("Q22 ")
84     if (Q22 == "A") or (Q22 == "a"):
85         type_5 = type_5 + 1
86         break
87     elif (Q22 == "B") or (Q22 == "b"):
```

Code Illustration

```
In [1]: runfile('C:/Users/Leung/Desktop/test.py', wdir='C:/Users/Leung/Desktop')
Type 1 score: 9
Type 2 score: 12
Type 3 score: 13
Type 4 score: 20
Type 5 score: 21
Type 6 score: 10
Type 7 score: 2
Type 8 score: 7
Type 9 score: 15
Your Result:|
Your personality type is type 5.
Thank you for your participation!!
```

Programme Content

Part 1: Data Collection (Simple Code)

Part 2: Data Visualization (Pandas)

Data

	Candidate	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6	Type 7	Type 8	Type 9	Type
1											
2	1	14	31	3	30	2	0	23	19	22	2
3	2	30	8	23	21	26	14	8	9	5	1
4	3	30	31	7	11	6	5	34	8	12	7
5	4	22	11	0	25	3	29	28	3	23	6
6	5	8	20	13	25	6	14	11	21	26	9
7	6	22	5	24	34	3	13	0	26	17	4
8	7	12	20	7	2	21	34	12	13	23	6
9	8	13	18	22	24	4	27	20	7	9	6
0	9	6	19	18	26	7	2	10	25	31	9
1	10	14	5	21	9	29	9	12	16	29	9
2	11	29	21	5	23	18	7	13	6	22	1
3	12	13	26	11	15	4	34	17	15	9	6
4	13	21	13	20	12	21	22	0	23	12	8
5	14	17	30	20	4	15	10	5	25	18	2
6	15	0	13	10	20	24	25	8	17	27	9
7	16	18	21	11	3	23	27	22	8	11	6
8	17	31	8	1	32	7	24	26	4	11	4
9	18	15	14	14	5	17	20	13	28	18	8
0	19	21	0	5	22	21	26	7	25	17	6
1	20	16	15	18	14	12	10	19	23	17	8
2	21	2	13	5	12	22	23	22	32	13	8
3	22	7	30	12	32	8	6	32	13	4	4,7
4	23	13	8	20	29	17	28	12	14	3	4
5	24	9	26	6	21	24	15	19	24	0	2
6	25	28	18	15	22	4	27	24	0	8	1
7	26	4	22	19	2	15	18	31	19	14	7
8	27	9	26	7	29	22	28	0	0	23	4
9	28	7	32	5	16	5	32	27	6	14	6
0	29	7	15	13	24	20	8	26	13	18	7

Pandas-Import Data

- Show the **distribution** of their types

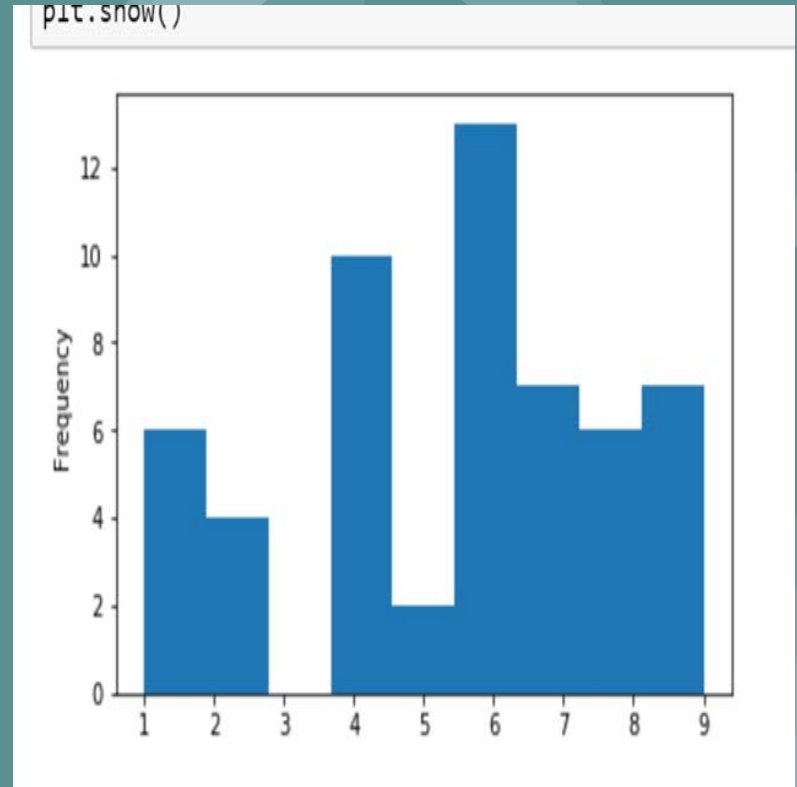
```
In [6]: import pandas as pd  
excel_file="employeedata.xlsx"  
data=pd.read_excel(excel_file)  
data.head(55)
```

	employees	type
0	1	2
1	2	1
2	3	7
3	4	6
4	5	9
5	6	4
6	7	6
7	8	6
8	9	9
9	10	9
10	11	1
11	12	6
12	13	8
13	14	2
14	15	9
15	16	6
16	17	4
17	18	8
18	19	6

Pandas-Histogram

- Show the **distribution** of their type

```
import matplotlib.pyplot as plt
import seaborn as sns
data['type'].plot(kind="hist",bins=9)
plt.show()
```



Pandas-Swarmplot

- Show the **concentration** of the scores that workers get in every types

```
In [135]: import pandas as pd
excel_file="result.xlsx"
data=pd.read_excel(excel_file)
data.head(1000)
```

22	1	13
23	1	9
24	1	28
25	1	4
26	1	9
27	1	7
28	1	7
29	1	11
...
420	9	13
421	9	4
422	9	3
423	9	0
424	9	8
425	9	14
426	9	23
427	9	14
428	9	18
429	9	15
430	9	12

Pandas-Swarmplot

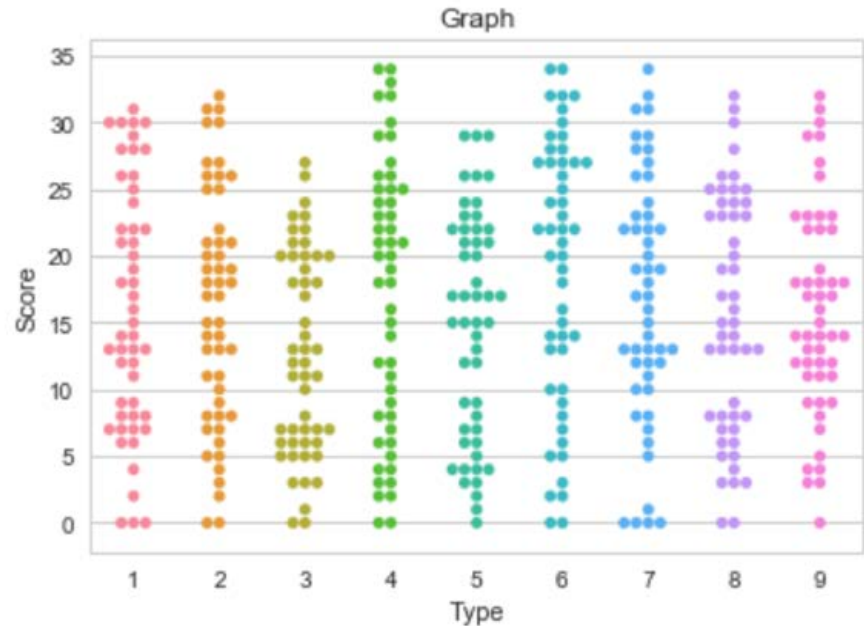
- Show the **concentration** of the scores that workers get in each types

```
import matplotlib.pyplot as plt
%matplotlib inline
import seaborn as sns
sns.set(style="whitegrid")
ax=sns.swarmplot(x='Type', y='Score', data=data)

plt.title('Graph')

plt.show()
```

plt.show()



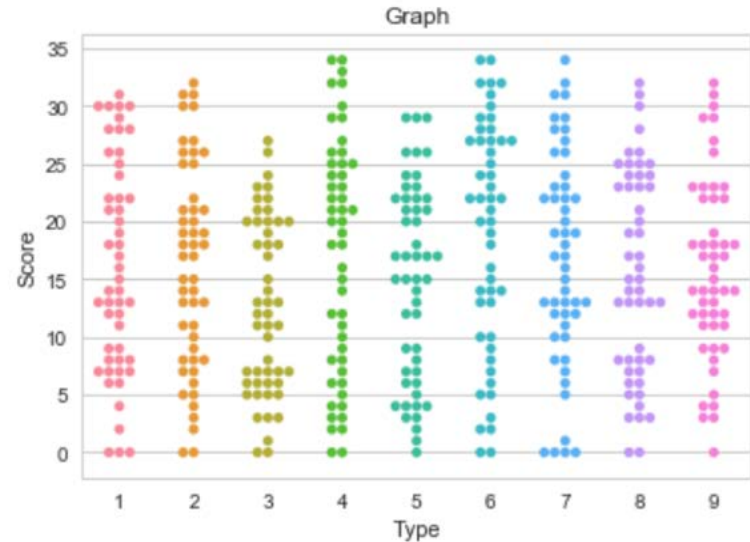
Application to Human Resource Training



Suggestion

- HR training should be focused on :
 - a. improving type 6's weakness
 - b. optimizing type 3
- But.... Enneagram is just a reference, not 100% accurate

```
plt.show()
```



~ Thank You ~

