

Young People Survey

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R Data Visualization Project: Young People Survey

Information about the main dataset (responses)

- In 2013, students of the Statistics class at FSEV UK were asked to invite their friends to participate in this survey.
- The data file (responses.csv) consists of 1010 rows and 150 columns (139 integer and 11 categorical).
- For convenience, the original variable names were shortened in the data file.
- File columns.csv represents the dataset for the shortenings made for each variable name
- All participants were of Slovakian nationality (the questionnaire was later translated in English), aged between 15-30.

The variables can be split into the following groups: - Music preferences (19 items) - Movie preferences (12 items) - Hobbies & interests (32 items) - Phobias (10 items) - Health habits (3 items) - Personality traits, views on life, & opinions (57 items) - Spending habits (7 items) - Demographics (10 items)

Main Question: How to effectively visualize a lot of variables in order to gain some meaningful insights from the data?

Example of a specific category:

MUSIC PREFERENCES

1. I enjoy listening to music.: Strongly disagree 1-2-3-4-5 Strongly agree (integer)
2. I prefer.: Slow paced music 1-2-3-4-5 Fast paced music (integer)
3. Dance, Disco, Funk: Don't enjoy at all 1-2-3-4-5 Enjoy very much (integer)
4. Folk music: Don't enjoy at all 1-2-3-4-5 Enjoy very much (integer)
5. Country: Don't enjoy at all 1-2-3-4-5 Enjoy very much (integer)
6. Classical: Don't enjoy at all 1-2-3-4-5 Enjoy very much (integer)
7. Musicals: Don't enjoy at all 1-2-3-4-5 Enjoy very much (integer)
8. Pop: Don't enjoy at all 1-2-3-4-5 Enjoy very much (integer)
9. Rock: Don't enjoy at all 1-2-3-4-5 Enjoy very much (integer)
10. Metal, Hard rock: Don't enjoy at all 1-2-3-4-5 Enjoy very much (integer)

Import data

```
data = read.csv("responses.csv")
columns = read.csv("columns.csv")

head(data)
```

```
## Music Slow.songs.or.fast.songs Dance Folk Country Classical.music Musical Pop
## 1 5 3 2 1 2 2 1 5
## 2 4 4 2 1 1 1 2 3
## 3 5 5 2 2 3 4 5 3
## 4 5 3 2 1 1 1 1 2
## 5 5 3 4 3 2 4 3 5
## 6 5 3 2 3 2 3 3 2
## Rock Metal.or.Hardrock Punk Hiphop..Rap Reggae..Ska Swing..Jazz Rock.n.roll
## 1 5 1 1 1 1 1 3
## 2 5 4 4 1 3 1 4
## 3 5 3 4 1 4 3 5
## 4 2 1 4 2 2 1 2
## 5 3 1 2 5 3 2 1
## 6 5 5 3 4 3 4 4
## Alternative Latino Techno..Trance Opera Movies Horror Thriller Comedy
## 1 1 1 1 5 4 2 5
## 2 4 2 1 1 5 2 2 4
## 3 5 5 1 3 5 3 4 4
## 4 5 1 2 1 5 4 4 3
## 5 2 4 2 2 5 4 4 5
## 6 5 3 1 3 5 5 5 5
## Romantic Sci.fi War Fantasy.Fairy.tales Animated Documentary Western Action
## 1 4 4 1 5 5 3 1 2
## 2 3 4 1 3 5 4 1 4
## 3 2 4 2 5 5 2 2 1
## 4 3 4 3 1 2 5 1 2
## 5 2 3 3 4 4 3 1 4
## 6 2 3 3 4 3 3 2 4
## History Psychology Politics Mathematics Physics Internet PC
## 1 1 5 1 3 3 5 3
## 2 1 3 4 5 2 4 4
## 3 1 2 1 5 2 4 2
## 4 4 4 5 4 1 3 1
## 5 3 2 3 2 2 2 2
## 6 5 3 4 2 3 4 4
## Economy.Management Biology Chemistry Reading Geography Foreign.languages
## 1 5 3 3 3 3 5
## 2 5 1 1 4 4 5
## 3 4 1 1 5 2 5
## 4 2 3 3 5 4 4
## 5 2 3 3 5 2 3
## 6 1 4 4 3 3 4
## Medicine Law Cars Art.exhibitions Religion Countryside..outdoors Dancing
## 1 3 1 1 1 1 5 3
## 2 1 2 2 2 1 1 1
## 3 2 3 1 5 5 5 5
```

## 4	2	5	1		5	4		1	1	
## 5	3	2	3		1	4		4	1	
## 6	4	3	5		2	2		5	1	
##	Musical.instruments	Writing	Passive.sport	Active.sport	Gardening	Celebrities				
## 1		3	2	1	5	5		1		
## 2		1	1	1	1	1		2		
## 3		5	5	5	2	1		1		
## 4		1	3	1	1	1		2		
## 5		3	1	3	1	4		3		
## 6		5	1	5	4	2		1		
##	Shopping	Science.and.technology	Theatre	Fun.with.friends	Adrenaline.sports					
## 1	4		4	2	5			4		
## 2	3		3	2	4			2		
## 3	4		2	5	5			5		
## 4	4		3	1	2			1		
## 5	3		3	2	4			2		
## 6	2		3	1	3			3		
##	Pets	Flying	Storm	Darkness	Heights	Spiders	Snakes	Rats	Ageing	Dangerous.dogs
## 1	4	1	1	1	1	1	5	3	1	3
## 2	5	1	1	1	2	1	1	1	3	1
## 3	5	1	1	1	1	1	1	1	1	1
## 4	1	2	1	1	3	5	5	5	4	5
## 5	1	1	2	1	1	1	1	2	2	4
## 6	2	3	2	2	2	1	2	2	1	1
##	Fear.of.public.speaking		Smoking		Alcohol	Healthy.eating				
## 1		2	never smoked	drink a lot		4				
## 2		4	never smoked	drink a lot		3				
## 3		2	tried smoking	drink a lot		3				
## 4		5	former smoker	drink a lot		3				
## 5		3	tried smoking	social drinker		4				
## 6		3	never smoked	never		2				
##	Daily.events	Prioritising.workload	Writing.notes	Workaholism	Thinking.ahead					
## 1		2		2	5	4		2		
## 2		3		2	4	5		4		
## 3		1		2	5	3		5		
## 4		4		4	4	5		3		
## 5		3		1	2	3		5		
## 6		2		2	3	3		3		
##	Final.judgement	Reliability	Keeping.promises	Loss.of.interest						
## 1		5	4	4	1					
## 2		1	4	4	3					
## 3		3	4	5	1					
## 4		1	3	4	5					
## 5		5	5	4	2					
## 6		1	3	4	3					
##	Friends.versus.money	Funniness	Fake	Criminal.damage	Decision.making	Elections				
## 1		3	5	1	1	3		4		
## 2		4	3	2	1	2		5		
## 3		5	2	4	1	3		5		
## 4		2	1	1	5	5		5		
## 5		3	3	2	1	3		5		
## 6		2	3	1	4	2		5		
##	Self.criticism	Judgment.calls	Hypochondria	Empathy	Eating.to.survive	Giving				
## 1		1	3	1	3	1		4		

## 2	4	4	1	2	1	2
## 3	4	4	1	5	5	5
## 4	5	4	3	3	1	1
## 5	5	5	1	3	1	3
## 6	4	4	1	4	2	3
##	Compassion.to.animals Borrowed.stuff Loneliness Cheating.in.school Health					
## 1	5	4	3		2	1
## 2	4	3	2		4	4
## 3	4	2	5		3	2
## 4	2	5	5		5	1
## 5	3	4	3		5	3
## 6	5	5	2		4	3
##	Changing.the.past God Dreams Charity Number.of.friends					
## 1	1	1	4	2	3	
## 2	4	1	3	1	3	
## 3	5	5	1	3	3	
## 4	5	4	3	3	1	
## 5	4	5	3	3	3	
## 6	3	3	3	2	3	
##	Punctuality Lying Waiting New.environment					
## 1	i am always on time		never	3		4
## 2	i am often early		sometimes	3		4
## 3	i am often running late		sometimes	2		3
## 4	i am often early only to avoid hurting someone			1		1
## 5	i am always on time		everytime it suits me	3		4
## 6	i am often early only to avoid hurting someone			3		4
##	Mood.swings Appearance.and.gestures Socializing Achievements					
## 1	3	4	3	4		
## 2	4	4	4	2		
## 3	4	3	5	3		
## 4	5	3	1	3		
## 5	2	3	3	3		
## 6	3	3	4	2		
##	Responding.to.a.serious.letter Children Assertiveness Getting.angry					
## 1		3	5	1	1	
## 2		4	2	2	5	
## 3		4	4	3	4	
## 4		3	2	5	5	
## 5		3	5	4	2	
## 6		2	3	4	3	
##	Knowing.the.right.people Public.speaking Unpopularity Life.struggles					
## 1		3	5	5	1	
## 2		4	4	4	1	
## 3		3	2	4	4	
## 4		4	5	3	3	
## 5		3	5	5	2	
## 6		4	4	4	3	
##	Happiness.in.life Energy.levels Small...big.dogs Personality					
## 1	4	5	1	4		
## 2	4	3	5	3		
## 3	4	4	3	3		
## 4	2	2	1	2		
## 5	3	5	3	3		
## 6	3	4	4	3		

```

## Finding.lost.valuables Getting.up Interests.or.hobbies Parents..advice
## 1 3 2 3 4
## 2 4 5 3 2
## 3 3 4 5 3
## 4 1 1 NA 2
## 5 2 4 3 3
## 6 3 3 5 3
## Questionnaires.or.polls Internet.usage Finances Shopping.centres
## 1 3 few hours a day 3 4
## 2 3 few hours a day 3 4
## 3 1 few hours a day 2 4
## 4 4 most of the day 2 4
## 5 3 few hours a day 4 3
## 6 4 few hours a day 2 3
## Branded.clothing Entertainment.spending Spending.on.looks Spending.on.gadgets
## 1 5 3 3 1
## 2 1 4 2 5
## 3 1 4 3 4
## 4 3 3 4 4
## 5 4 3 3 2
## 6 3 3 1 4
## Spending.on.healthy.eating Age Height Weight Number.of.siblings Gender
## 1 3 20 163 48 1 female
## 2 2 19 163 58 2 female
## 3 2 20 176 67 2 female
## 4 1 22 172 59 1 female
## 5 4 20 170 59 1 female
## 6 4 20 186 77 1 male
## Left...right.handed Education Only.child Village...town
## 1 right handed college/bachelor degree no village
## 2 right handed college/bachelor degree no city
## 3 right handed secondary school no city
## 4 right handed college/bachelor degree yes city
## 5 right handed secondary school no village
## 6 right handed secondary school no city
## House...block.of.flats
## 1 block of flats
## 2 block of flats
## 3 block of flats
## 4 house/bungalow
## 5 house/bungalow
## 6 block of flats

```

See columns data

```
head(columns)
```

```

## original short
## 1 I enjoy listening to music. Music
## 2 I prefer. Slow songs or fast songs
## 3 Dance, Disco, Funk Dance
## 4 Folk music Folk

```

## 5	Country	Country
## 6	Classical	Classical music