DATA ANALYTICS FINAL PROJECT PRESENTATION

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NÍYÓ

Department for Education

BLACK DISRUPTOR ACCELERATOR

HELLO!

About Me

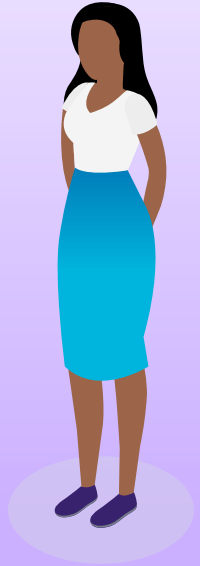
I am Ashleigh Sewell.

A qualified primary school teacher specialising in SEN, I have been in the field for 6 years.

Passionate about inclusive teaching and breaking barriers to achieving a good education.

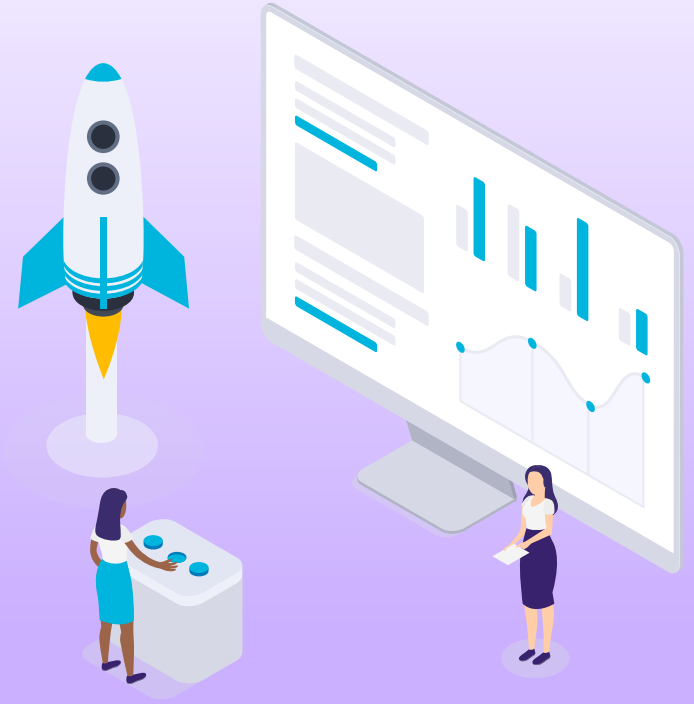
Also hold a BA Criminology degree which has enabled me to have an anaylytic approach when dealing with data and statistics.

Have worked in a range of sectors including Administration, Hospitality, Retail, Logistics and Mentoring.



Q1 WHY?

Why did you choose to learn Data Analytics?



I enjoy broadening my knowledge and pushing myself.

I felt it was time to learn a new set of skills which are relevant to the moving times.

At the time I was saying to friends and family I need something to stimulate my mind.

After seeing Niyo Enterprise on a local news channel I was amazed to learn of courses aimed at getting BAME women into the world of tech.

Although it was clear the course would be intense, I knew I would gain a set of fundamental skills, acquire a new discipline and succeed in my personal thirst for learning!

02

WHAT?

What role would you like to work in following what you've learned?

- Ideally a role which incorporates my career in education whilst utilising my newly developed skills.

- Data Analyst/Data Scientist in a company that uses their findings to make positive change to impact and/or transform children, disadvantaged and vulnerable peoples lives.

03 How?

How did you apply what you learnt from the Bootcamp?

Excel

- Initally used to view the raw dataset. Data was cleaned. As it's a survery with human responses, there were errors and typos. Used formulas and functions to answer key questions and filter information.

MySQL

- Once data had been cleaned and edited, MySQL was applied to run queries to answer further analysis questions. MySQL enabled me to filter and sift through the data.

PowerBI

- PowerBI to visually show findings, trends/correlations and analysis in the form of a dashboard.

OVERVIEW AND OBJECTIVE OF PROJECT

Overview

The dataset used is a survey conducted in December 2020, based on 1182 students living in and around Delhi.

Students were asked questions on how COVID-19 impacted their education, social life and mental health.

Objective

To explore:

- Did COVID-19 impact students education?
- Are there links between social media usage and students engagement?
- What patterns/trends emerge based on students age category?

MySQL

Final Project SQL A Sewell*

Limit to 2000 rows

```sql
-- This SQL database is a sample of 1182 students from Delhi responding to questions about their learning habits/changes during lockdown.

-- Retrieve everything from the database working with.
SELECT * FROM finalproject.education;

-- Show student ID numbers and variety of ages.
SELECT ID, Age_of_subject FROM finalproject.education;

-- Find the average age of students that took part.
SELECT AVG (age_of_subject) AS 'Average Age' FROM finalproject.education;

-- How many students rated the online class experience as poor or very poor?
SELECT ID, Rating_of_online_class_experience
FROM finalproject.education
WHERE Rating_of_online_class_experience IN ('very poor','poor');
-- Answer to above is 442 students.

-- Number of varieties of social media platforms used during this period?
SELECT COUNT(DISTINCT prefered_social_media_platform) AS 'Number of Social Media Platforms' FROM finalproject.education;
```

Final Project SQL A Sewell*

Limit to 2000 rows

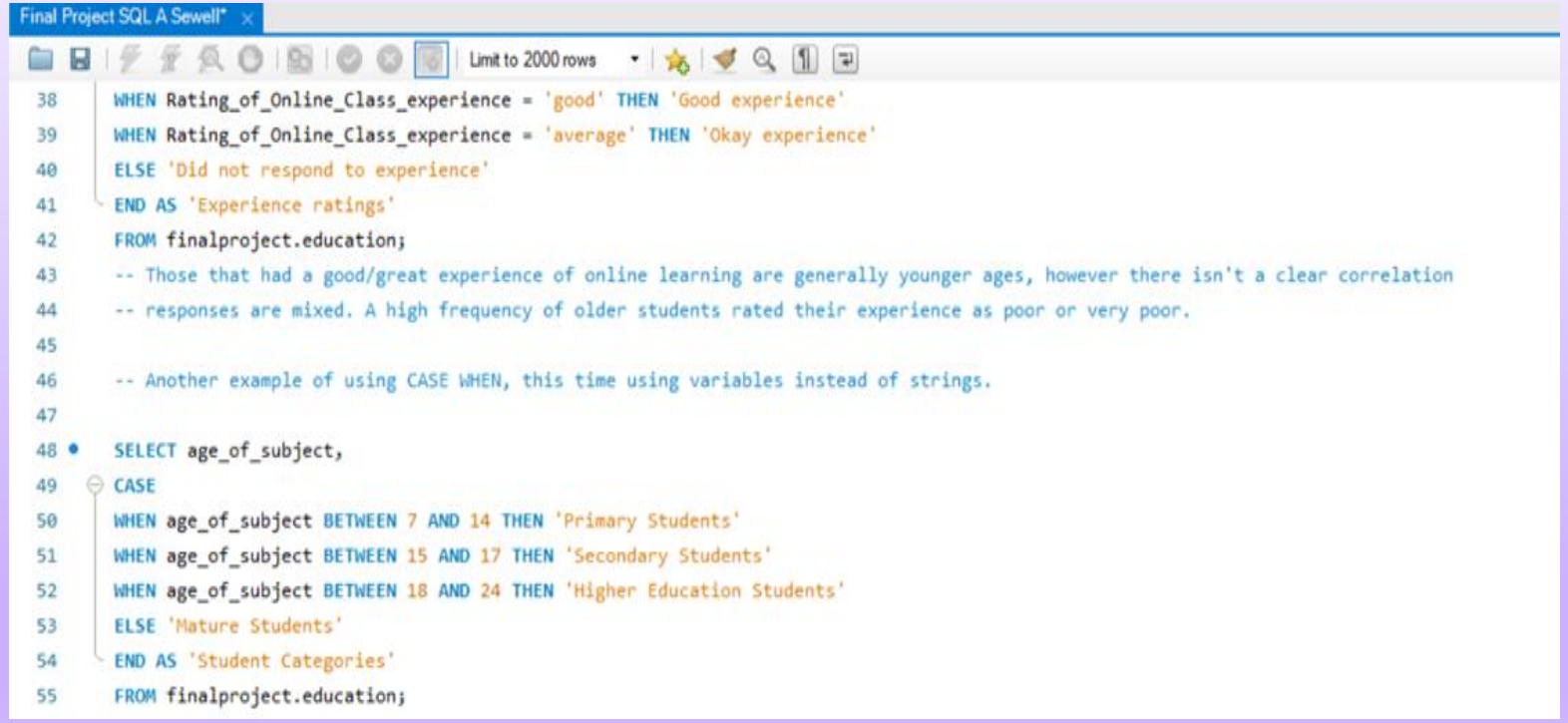
```sql
-- Average time spent on self study by age
SELECT age_of_subject, AVG(time_spent_on_self_study) AS 'Average time spent on self study by age' FROM finalproject.education GROUP BY age_of_sub
-- Not a clear trend, however those that were aged 20+ spent an average of 3 hrs or more on self study.
-- Those that fall into the secondary ages (15-17) also spent an average of 3 hrs or more on self study.

-- Average time spent on social media by age
SELECT age_of_subject, AVG(time_spent_on_social_media) AS 'Average time spent on social media by age' FROM finalproject.education
GROUP BY age_of_subject;
-- Other than 18 and 19 year olds, all other students who averaged 2 hrs+ on social media were over 20 years old.

-- Students experience ratings via their age. Does a students age impact on their overall experience?

SELECT rating_of_online_class_experience, age_of_subject,
CASE
WHEN Rating_of_Online_Class_experience = 'poor' THEN 'Not great experience'
WHEN Rating_of_Online_Class_experience = 'very poor' THEN 'Terrible experience'
WHEN Rating_of_Online_Class_experience = 'excellent' THEN 'Great experience'
WHEN Rating_of_Online_Class_experience = 'good' THEN 'Good experience'
WHEN Rating_of_Online_Class_experience = 'average' THEN 'Okay experience'
ELSE 'Did not respond to experience'
END AS 'Experience ratings'
```

MySQL Continued...



EXCEL

Examples of MAX, MIN & AVERAGE

=MAX(B2:B1183)

Q	R	S	T	U	V	W
o_you	What_y	_miss_the_most		Maximum Age of Respondent		
ES	Travelling			59		
ES	School/college			Minimum Age of Respondent		

=MIN(B2:B1183)

Q	R	S	T	U	V	W	X
o_you	What_y	_miss_the_most		Maximum Age of Respondent			
ES	Travelling			59			
ES	School/college			Minimum Age of Respondent			
ES	Roaming around freely			7			

=AVERAGE(B2:B1183)

Q	R	S	T	U	V	W	X
o_you	What_y	_miss_the_most		Maximum Age of Respondent			
ES	Travelling			59			
ES	School/college			Minimum Age of Respondent			
ES	Roaming around freely			7			
O	Roaming around freely			Average Age of Respondent			
ES	Eating outside			20.16582			

=COUNTIF(B2:B1183,"<=14")

R	S	T	U	V	W	X
at_y	_miss_the_most		Maximum Age of Respondent			
velling			59			
ool/college			Minimum Age of Respondent			
aming around freely			7			
aming around freely			Average Age of Respondent			
ing outside			20.16582			
ool/college			Number of Primary Students (Aged 14 & Un			
ool/college			140			

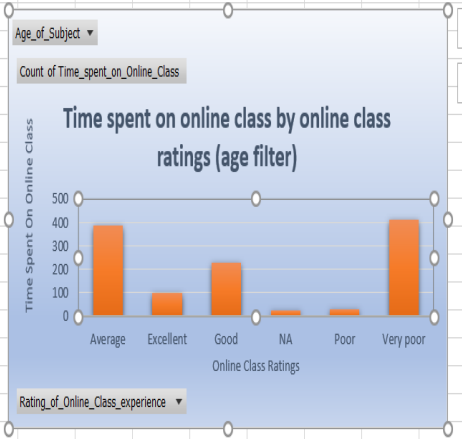
Examples of COUNTIF(S)

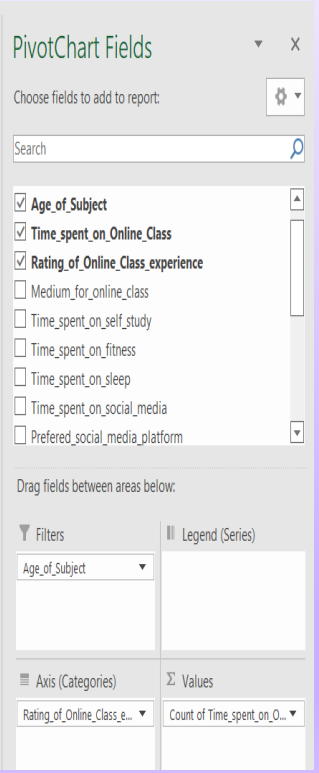
=COUNTIFS(B:B,">=18",B:B,"<=24")

U	V	W	X
Maximum Age of Respondent			
59			
Minimum Age of Respondent			
7			
Average Age of Respondent			
20.16582			
Number of Primary Students (Aged 14 & Under)			
140			
Number of Secondary Students (Aged 15-17)			
162			
Number of Higher Education Students (18-24)			
690			
Number of Mature Students (25+)			
117			
No of Higher Education Students (18-24)			
763			

EXCEL Continued...

Age_of_Subject	(All)
Rating_of_Online_Class_experience	**Count of Time_spent_on_Online_Class**
Average	387
Excellent	98
Good	230
NA	24
Poor	30
Very poor	413





POWERBI


2.91
Average of Time spent on self study
Developed health issues during lockdown?
13.62%
86.38%
Health... NO YES
2.92
Average of Number of meals per day
Rating of Online Classes | Count of Age of Subject
Very poor 413
Average 387
Good 230
Excellent 98
Poor 30
NA 24
Top 10 Social Media Platforms Used
100%
Instagram
Whatsapp
Youtube
Linkedin
Facebook
Twitter
None
Snapchat
Reddit
Telegram
0.9%
2.37
Average of Time spent on social media
Percentage of Students
30%
20%
10%
0%
What have you missed most during lockdown?
School/coll...
Friends , relatives
Travelling
Roaming aroun...
Eating outside
Colleagues
ALL
Nothing
Gym
all of the above
Family
Only friends
Student Responses
COVID-19 & ITS IMPACT ON EDUCATION, SOCIAL LIFE AND MENTAL HEALTH OF STUDENTS: A SURVERY
Data Visualisation Dashboard created by ASHLEIGH SEWELL
Did time on fitness impact weight?
Time spent on fitness
400
200
0
Remain Constant
Increased
Decreased
Changes in weight?
7.87
Average of Time spent on sleep
Filter Results by Student Age
7
59
Devices used for accessing online classes
Medium for Online Cla... Laptop/... Smartph... NA Tablet Any Gad... Smartph...
Laptop/Desktop
545
Smartphone
539
NA
51
Tablet
37

SUMMARY/ANALYSIS

Education

- Majortity of students rated online teaching to be “very poor”, closely followed by “average”.
- On average students spent just less than 3 hours a day of self-study.

Mental Health

- During this period on average students got less than the daily recommended amount of sleep.
- There were 84 varieties of stress busters students had to cope during COVID19.

Fitness & Health

- COVID19 did not have a significant impact on developing health issues.
- Average of students did not consume the daily recommended amout of meals.
- Just under half of students weight remained the same.

Social Media

- Instagram, closely followed by Whatsapp were the most popular platforms used.
- Laptop/desktops and smartphones were the top devices used for accessing classes.
- More time was spent on self study than social media.

Top 3 things you have learnt on the bootcamp

Growth

My confidence has exceled during the process and I am ready for the next challenge!

Resilence

During the bootcamp there has been many hurdles, both personally and technologically. I continued to pursue with studies.

Fundamental tech skills

I am now competent in a number of tech areas which I can use and apply to future roles. I believe these skills will open up a new world for me!

THANKS!

Any questions?

You can find me at:

- Email: Ashleigh_sewell@hotmail.com
- Github: ASewell2022