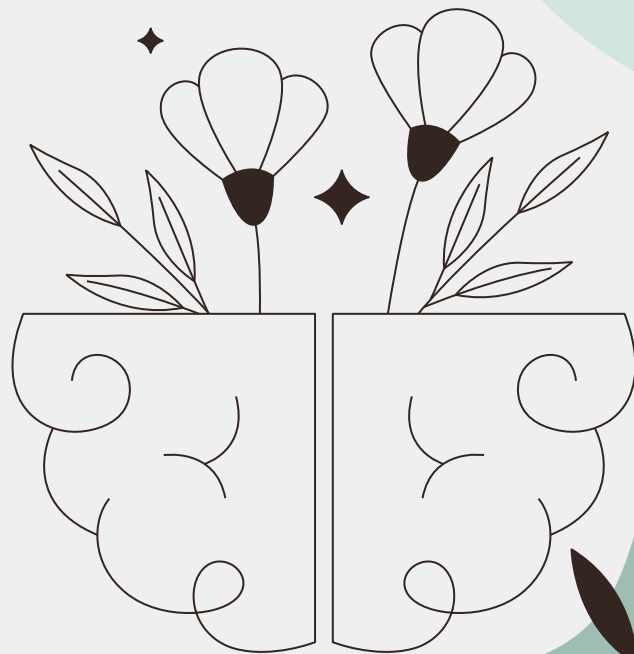




Created & presented
by Kiersten Johns

Our Educator's Mental Health and Well-being

Better Help's Educator Alliance Initiative



Presentation Contents

Below is a brief overview of what will be discussed during this presentation

Introduction	Problem statement review
Sources	A brief overview of the data source & other outside sources
Outside Research	Discuss outside research
EDA / Modeling Process	Description of EDA and the modeling process
Winning Model	In depth review of the winning model
Conclusion	An executive summary of all materials



Introduction

- Teacher Burnout
- Who is **Better Help**?
- Educator Alliance Initiative



Problem Statement

Once the Educator Alliance Initiative goes live, Better Help is expecting a mass influx in inquiries.

Those in the inquiry intake department will need to be able to quickly and effectively determine if that customer is a candidate for program.

Better Help has enlisted my assistance in building a model that will be able to read any incoming inquiry and predict whether or not to place that customer into their new initiative with at least 90% accuracy.

Sources

01

Psychology Today

02

Better Help

03

ValuePenguin

04

Mira

05

Think Impact

06

Reddit

r/teaching
r/mentalhealth

Outside Research

- 500,000 educators are uninsured
- Average cost of a single therapy session:
 - \$138 - \$300
- 1 hr session / week:
 - ~ \$1,200 / month
- 51% of teachers fear for their mental and physical health when teaching.
- 90% of teachers reported that their feelings of burnout were a serious problem for them and their job.
- 30% of new teachers are quitting their job within 5 years of teaching.

EDA



r/teaching

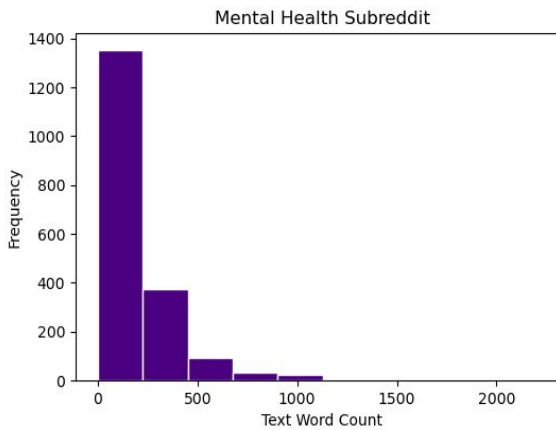
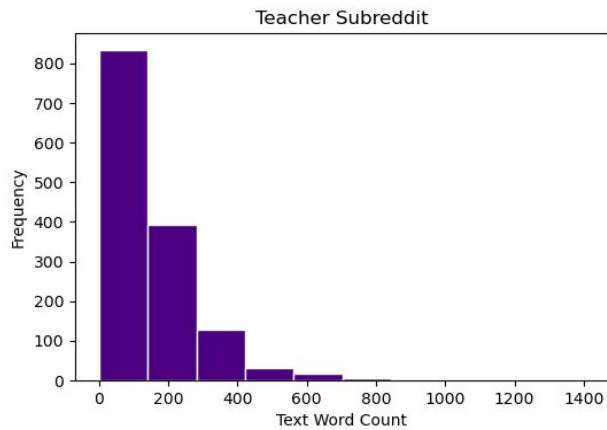
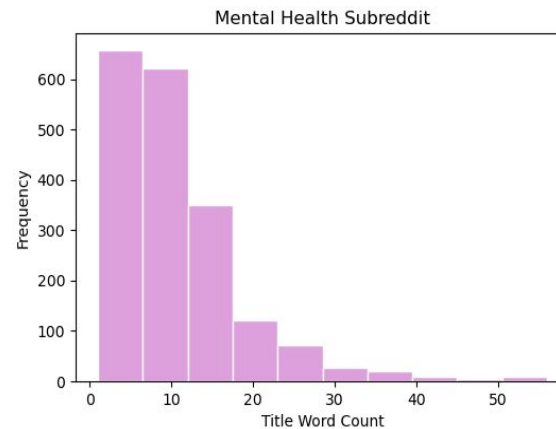
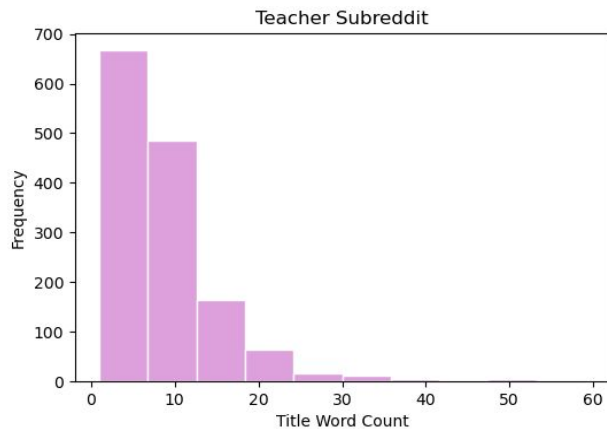
- Community for educators
- Over 120k members.



r/mentalhealth

- Forum to discuss, vent, support and share information about mental health, illness and wellness,
- Over 417k members.

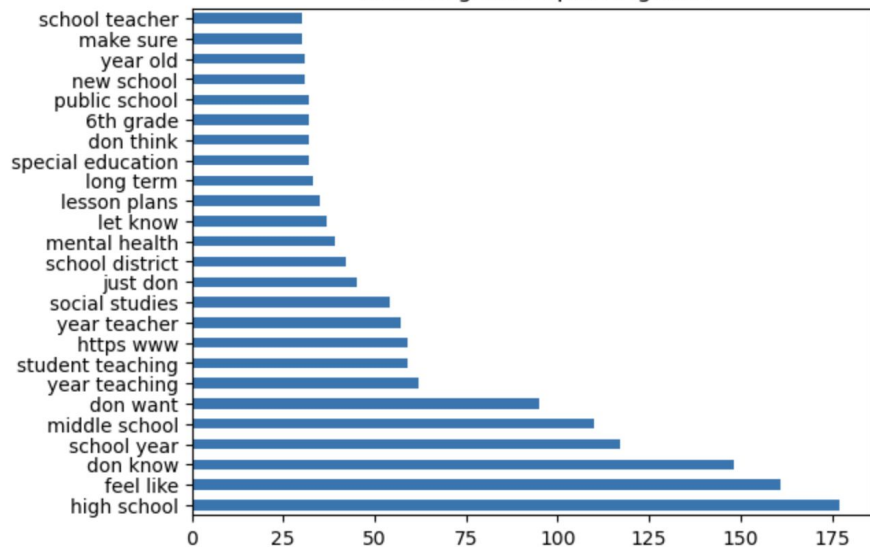
EDA



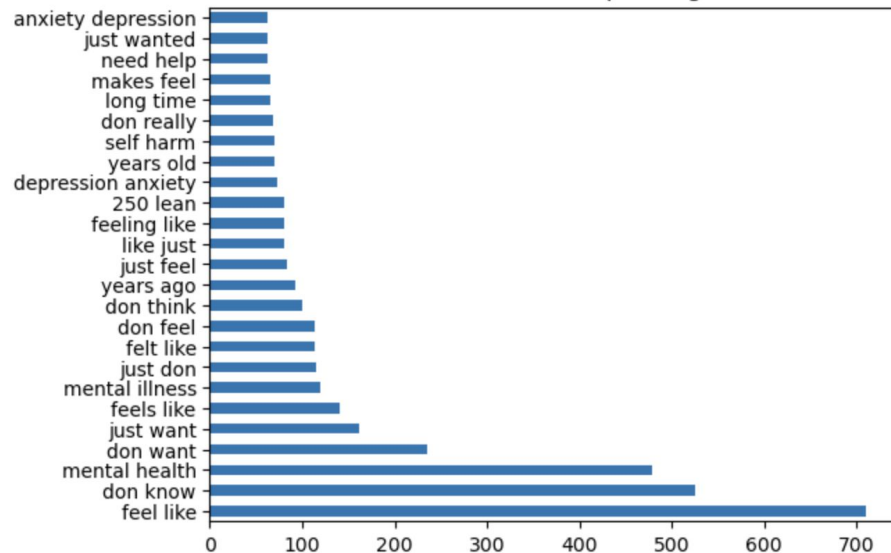
EDA



r/teaching Text Top 25 Bigrams



r/mentalhealth Text Top 25 Bigrams



EDA



Teaching Title	Teaching Text
0.00915549295774648	0.313248661971831



Mentalhealth Title	Mentalhealth Text
-0.08286455361859 482	-0.02922234548335 9734

Modeling Process

- Titles Only Models:

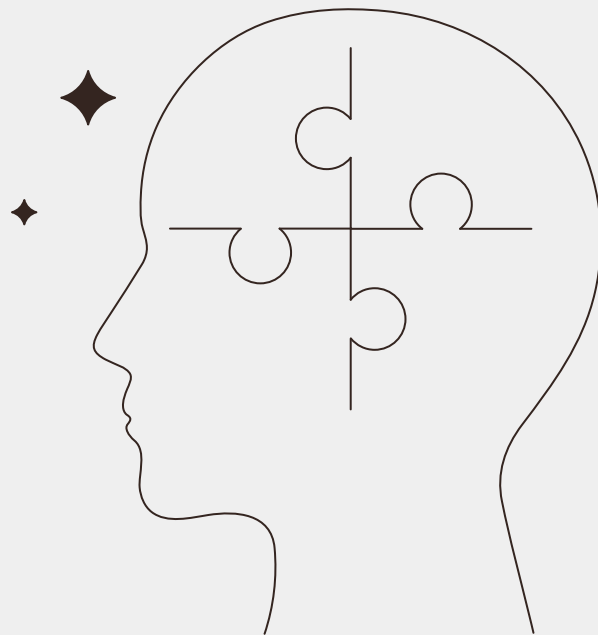
- CV, MNB
- CV, LR
- TV, MNB
- TV, LR

- Text Only Models:

- CV, MNB
- CV, LR
- TV, MNB
- TV, LR

- Title & Text Models:

- CV, MNB
- CV, LR
- TV, MNB
- TV, LR



The Winning Model

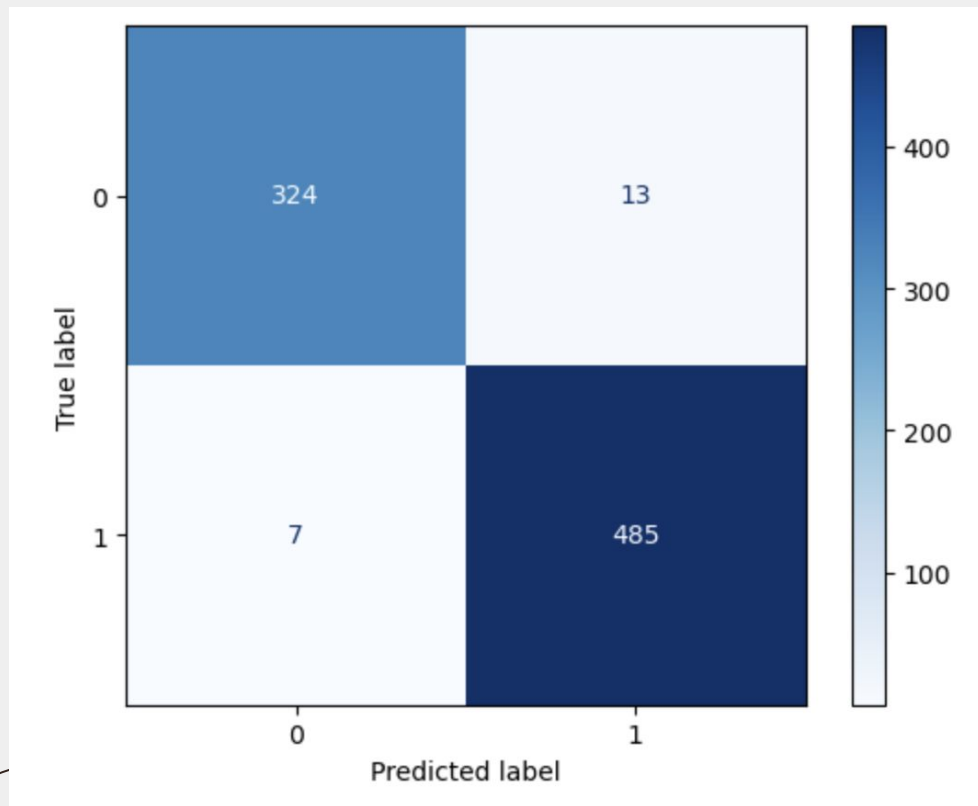
Parameters

Pre-Processor	TfidfVectorizer
Model	MultinomialNB
Dataframe	Title & Text combo
n_gram range	(1,2)
stopwords	english

Scores

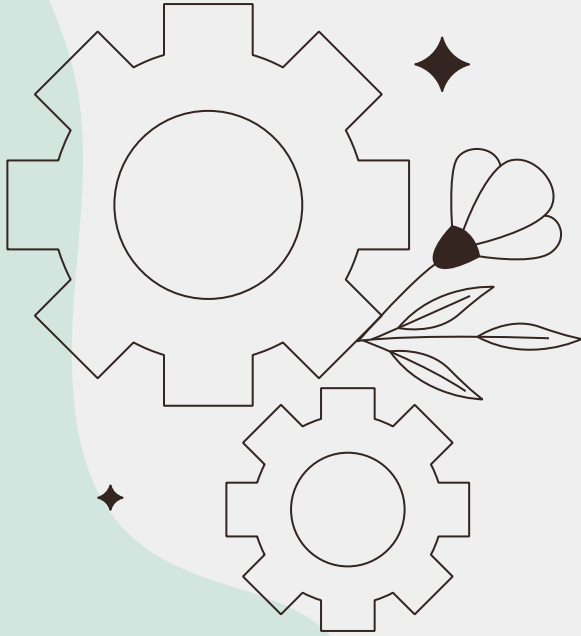
Training Score	0.9762
Testing Score	0.9759

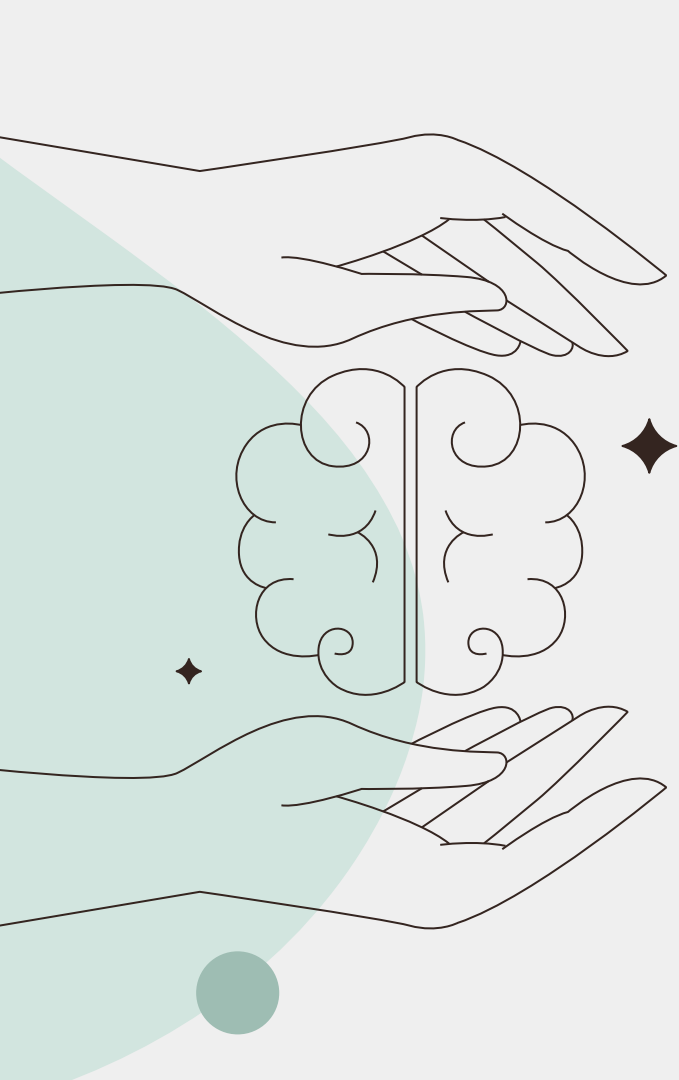
Prediction Confusion Matrix



Human Error?

“Giving up. I quit my position and I don't know what's next. The pressure of this job is tolerable, if I was working towards something. As it is now, I feel like I am joining a game of Monopoly 20 turns after everyone else. Just roll the dice and pay rent, that's my only option. I just want to stop. I want to say it's a mental health crisis, but the reality is, my poor mental health comes from social and financial poverty. I love Teaching. I love the job, really. But it's hard to keep rolling the dice, knowing I can't buy shit. I just work and work and pay for other people's shit. The only rent free spot on the board is jail. I've been thinking about how I could save for retirement and my conclusion is I will not be able to retire. No matter how much personal wealth I accumulate, without a house I will be relying on the generosity of others when I am too old to work. There is not future in this and I hate being told to roll the dice by people who own everything on the board. Just roll the dice, that's how you win! They say unsarcastically. I want to give up. So I gave up. Now I am depressed.”





Thank You!

Do you have any questions?

