Linguistic Discrimination Research And How To Organize Qualitative Data

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Acknowledgements

Abstract

A team of researchers at Reed College developed a Qualtrics survey to conduct research on linguistic discrimination in a Portland liberal arts college. Using RStudio their research is visualized and easily understandable with the user-friendliness of RStudio and the helpful aspects the program provides.

Contents

1 Introduction

Linguistic discrimination is the discrimination against language use, pronunciation, syntax, vocabulary and more. The discrimination against language is prevalent anywhere, but in this paper I will be focused on the study a group of Reedies did on the discrimination of linguistics at their college, and how they used RStudio to visualize the data.

2 Research Resource Appreciation

This paper could not have been written without the useful material from the Reed College linguistic researchers. They provided me with multiple pages detailing their research and what they have done up to the 2022 summer, and allowed me to sit in on their meetings to learn more about what their goals were.

3 Linguistic Discrimination

Language is common among all beings. We use it to interact with one another, to share our problems and our dreams. Language is the way we connect whether it's spoken, felt, or heard. So,

why do we use it as a way to divide one another and discriminate against each other?

Linguistic discrimination is the discrimination of languages and the way someone communicates. It's a huge epidemic that isn't talked enough about, or at least it isn't mentioned because it benefits some people. Those who speak English, have an "American" accent and or are white all benefit from linguistic discrimination because they are seen as the "norm" when truthfully, there is no norm and language is not supposed to be a way to divide us discriminately. It should be used as a way to appreciate each other and appreciate our differences.

The way you speak can determine by society where you will fit in. A job, a school, a relationship, and opportunity is all dictated by language and the way we use it.

So, how can their be a conduction of data that will show us how a certain set of people have experienced or not experienced language discrimination? And how can it be done in a way that is easy to understand as well as encapsulates the data?

4 RStudio: A Useful Tool

RStudio is an editor for the program R (a coding language) that can be used for accurate and helpful research into qualitative data, statistical analysis and easy to understand answers. My interpretation from the research I have done is that RStudio is great for collaboration work especially when it is paired with GitHub (a repository network) that saves your data in a cloud for easy access within a group.

5 The Survey

Using the data from the survey the team at Reed conducted the results were compiled into a spreadsheet like format in RStudio. With over 11,000 cells of data ranging from a rating scale to descriptions of peoples voices. There were many questions with different answers from students and to understand the data and what it was saying each column had to be binned.

Binning is a method data scientist and statistical researches use to organize data into categories that can produce a clear picture of the message behind the data.

For example, in the survey like stated before there are multiple speakers and each speaker has a range of different answers from the survey takers. Each adjective that was applied to the voices gets put into different bins depending on what the adjective is. Happy and cheerful would go into a "Bubbly" bin, or "tall" and "6'4" would go into a "Tall" bin. Finding the similarity's between answers is the basis of binning. The differences matter too and can help illustrate the versatility that a voice can bring.

One person could hear a low voice and assume that that person is tall and male, but another person could hear it and assume the complete opposite. Usually there is a lot of overlap between what listeners describes the voice as. In the study a speaker that talked about their experience at Reed was described multiple times as masculine, male and or older. This doesn't mean that the speaker is any of these things, but it goes to show that their is assumptions by just hearing someones voice.

6 Conclusion

RStudio has many packages that are great for data wrangling like "tidyverse" which has sub-packages like "dplyr" that help

organize the data to look prettier. There's a lot that goes into a spreadsheet and because there is so much its nice to be able to clean up the data to lessen the overwhelming amount of it. The more data you have the better your results are and the better the answer to your research question is. That's why RStudio is a must for any kind of research project like the one the linguistic department at Reed did.

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